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Visual Instruction News

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A Project in Puppet Production

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Activities of State Visual Education Agencies in the United States

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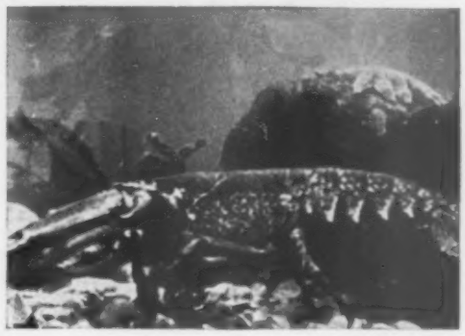

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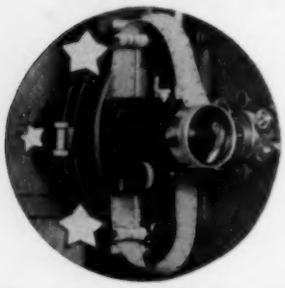

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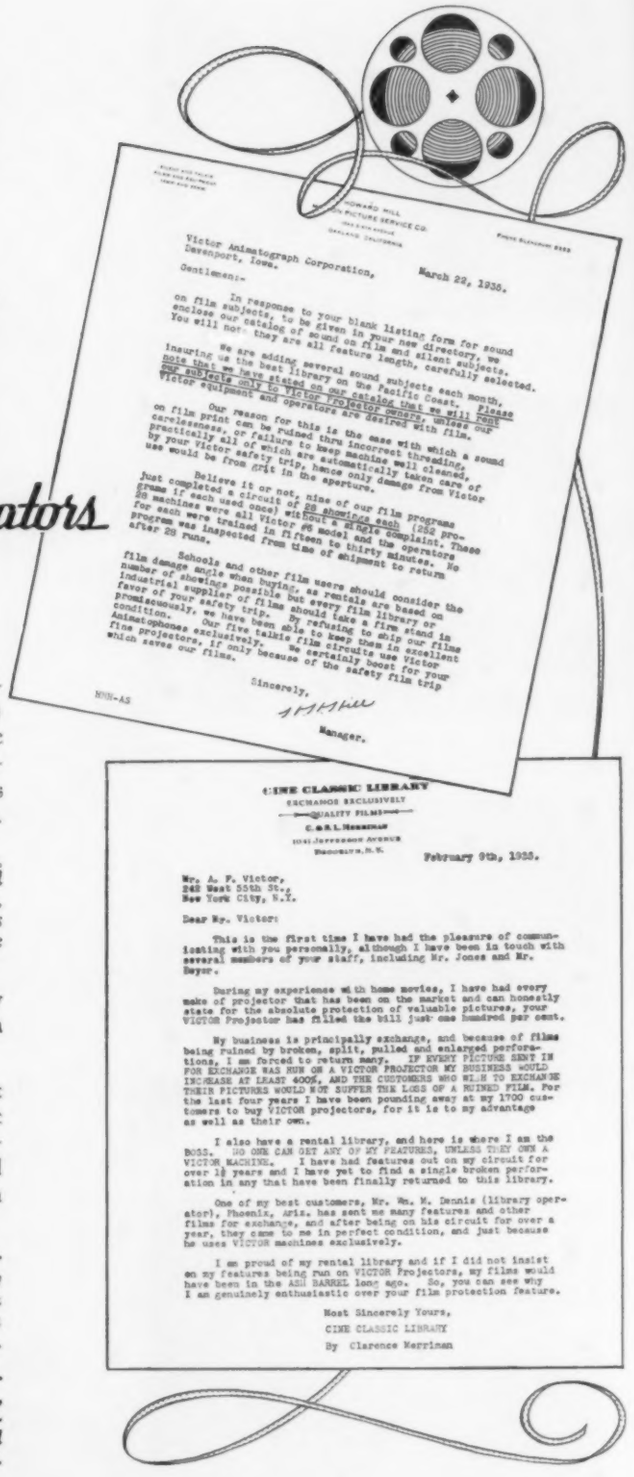

Victor Animatograph Corporation,
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March 28, 1935.

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By Clarence Merriman

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MAY, 1935

VOLUME XIV NUMBER 5

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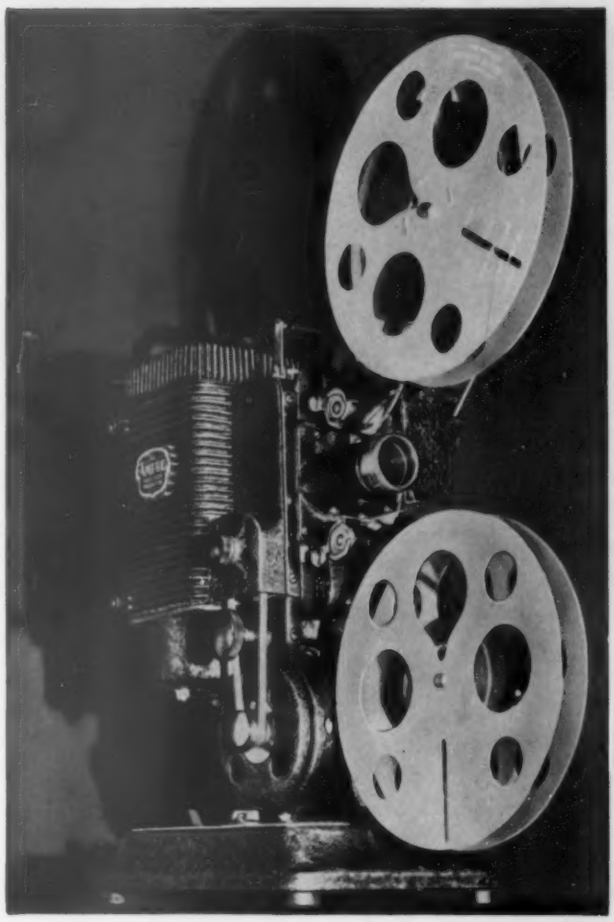

(Illustration above shows K Model)

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A Project In Puppet Production

By NAOMI D. and GEORGE W. WRIGHT
Public Schools, New Providence, New Jersey

PLANNING to enrich the interests and experiences of pupils in the intermediate grades, in oral English expression, a teacher introduced a project in puppet projection. Realizing that she must have something that could be effected easily and economically she made her approach through hand puppets. She brought in a little bear puppet which fitted nicely into the nature study program as well as the reading program. She had "Cubby Bear" dance on the desk and tell an interesting story. Such interest and enthusiasm, and such a flood of questions would be hard to relate! The pupils were very much surprised to find that "Cubby Bear" was just a puppet. They took turns making "Cubby Bear" dance, bow, and tell stories. These were their first spontaneous stories.

Following this the teacher explained the use of puppets in play production. Immediately all were enthusiastic about making a puppet show of their own. Here was the necessary incentive for writing original plays. Several were written and later produced by the pupils.

The pupils decided that they must build a suitable stage so that they might invite the other pupils in the school to a "real show." All sorts of materials were brought in from which to make the puppets and the stage. The stage was constructed on a scale large enough to permit the pupils to sit within the structure and manipulate the performing puppets. The sides, top, and front of the structure were covered with cloth, leaving a stage opening on which was wired a curtain. Suitable scenery for each production was tacked in place on the back part of the frame. Having completed this work one of the boys suggested it needed lights — like a real stage. He worked many evenings at home and finally brought in an appropriate arrangement of overhead lights and footlights, fitted with Christmas tree bulbs and tin reflectors.

The next problem was that of making suitable scenery. Brown wrapping paper served the purpose adequately. On this medium was depicted in colored blackboard chalk or paint a scene suitable for the setting of the story selected to be dramatized.

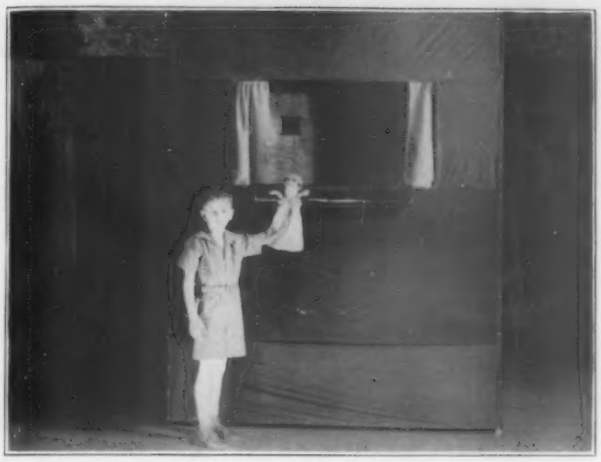
Boys and girls together displayed much interest in making the puppets. Unbleached muslin was used for the heads and hands. Two oval shaped pieces of cloth, about three inches high and two and one half inches wide, were used for the face and back of the head. These were seamed leaving the neckline open. Two oval shaped pieces, about two and one half inches high and two inches wide were sewed in similar manner for a lining. A thin layer of cotton was placed between the outer head and the lining to make a shape for the head. Sewing wool through the muslin and clipping it gave the effect of hair. Eyes and nose were embroidered in black, lips in red. The cheeks were tinted with water color paint. Placement of the eyeball and curvature of the mouth, on each puppet, produced individual facial expressions.

The bodies and clothes came into being as one unit. Two pieces of colored cloth, each ten inches by thirteen inches, were cut to make the front and back of the puppet's costume. The sides were seamed within one and one half inches of the top, leaving the upper and lower end open. A narrow hem finished the bottom opening. Two pieces of colored cloth three inches square were fashioned into sleeves, being fastened on either side of the one and one half inch opening left at the top of the body. By gathering the top opening a neckline was formed to fit the neckline of the head. Then the head and body were sewed together by inside seams. Muslin mittened hands, tinted with water color and stuffed with cotton were attached to the hanging sleeves. Suitable hats were made of colored material and fastened to the heads by very small stitches.

The puppets now were ready for action. By placing the thumb in one sleeve and little finger in the other, and the remaining three fingers in the head, the pupil manipulated the puppet. Movement of the fingers within the puppet produced life-like gestures. Movement of the pupil's arm and wrist caused the puppet to walk, run, jump, and turn. Time was now spent by the pupils in making the puppets act and talk on their stage.

Puppet heads and hats as conceived by pupils

When the pupils were satisfied with their puppet performance they extended written invitations to the other rooms in the school. Here was another need for written work in English.



The completed theater Stage elevated to accommodate pupils operating from the inside

The delightful acting, singing, and dancing by the puppets was thoroughly enjoyed by the other pupils in school during the auditorium period. So contagious was the interest in puppets, that the pupils of other grades planned and produced puppet shows of their own. The puppets became real friends and continuous performers, in other original plays, and story dramatizations based on other subjects. By changing, altering, or discarding a hat, by adding new properties, fastened by rubber bands or strings, to the puppet's hands, it was possible for each puppet to play many roles.

Since the original puppet stage was too large for use in the classroom, the pupils planned and constructed a small stage to be used on top of the teacher's desk or library table. When not in use this stage was folded and placed in a small space in a closet.

Puppets enriched not only English but Reading and the Social Studies also. They were potent factors in promoting a progressive educational program.

The Miniature Camera Way of Visual Instruction

By JOHN B. MacHARG
Professor, Lawrence College, Appleton, Wisconsin

THE value of light-projecting devices in teaching is so thoroughly established that it may be affirmed with confidence that almost every teacher would be a better teacher if there were always at hand ready for convenient use, an efficient stereopticon, with well-selected slides. While the use of visual material in general demands the constant exercise of trained judgment in estimating the apperceptive mass of the student and the amount of illustration that should be used, there is much greater danger of using too little rather than too much. No country of the world is so lavishly supplied with easily available pictorial materials as the U. S.; no country of the world has such wealth as ours in diversified and comparatively inexpensive optical apparatus for visual instruction, yet most teachers do not use the helpful devices available, and many educators are not alive to the saving in student and teacher time—the actual saving in money, which light-projected pictures, maps and charts, often make possible.

The moving-picture and the talking picture for group instruction, are the most effective of all visual teaching devices; but for class room teaching, certain considerations make advisable a first emphasis upon the use of still projection, which has the great advantages of ease and quietness in operation, combined with simplicity and economy in the production of slide material.

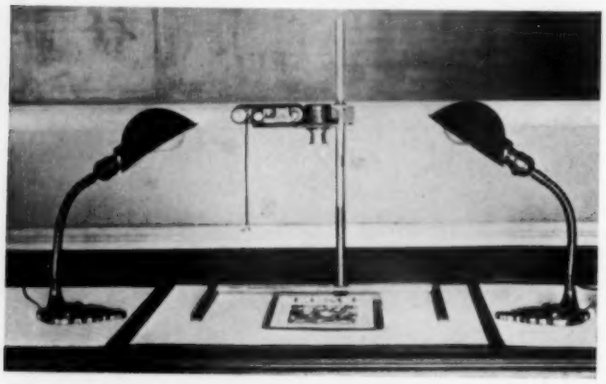
The uses and merits of the standard stereopticon with glass slides, 3¼x4 in., are well known almost everywhere. It stands unrivaled for public lectures where colored slides are desired, and for some types of teaching, especially in the lower grades, and wherever a large image, or bright lighting of the room during projection seem necessary. The cost of the machine, the expense of slides, their weight, and the liability of breakage in transportation, have retarded their general use, however good may be their service in the favored centers which have adopted them for visual teaching. The greatest disadvantage of the glass slide is the difficulty of its production. Simple and easy as is the process, it demands a copying camera and other apparatus, a dark-room and knowledge of its technique, together with an expenditure of time and money that few teachers can afford to assume. They should not assume it, for the field of the teacher lies in the selection and mastery of materials for teaching, and in their use—not in the time absorbing experimentation which the mastery of the art of making glass slides demands, fascinating and interesting as that work may be.

The production of one's own slides is, however, an essential for thoroughly satisfactory visual teaching, and therein lie a satisfaction of creative activity and a sense of accomplishment which add keen joy to teaching. It enables one, too, to share valuable pictures and educational devices with others. All this, and much more, is within the easy reach of any teacher by means of recent instruments of precision. With the utmost ease and speed, any amateur photographer of

average ability can produce slides of out-of-door subjects, copies of book and periodical illustrations, minute details of scientific experiments, etc., ad libitum, with comparatively slight expense and without the use of a dark-room. In every way, such slides compare favorably with the best standard glass slides. Careful tests with a critical audience have proved that 35mm. film-strip and 3¼x4 in. glass slides of the same subject, displayed side by side on the screen, can not be distinguished.

It is my purpose to describe as simply and briefly as I can, the instruments I use, with which I know like results may be obtained by almost anyone who will try.

First of all, the Leica camera,* made with the care and exactness of the finest microscope, has built within it a range finder, by which the operator sees two images of the picture in the finder when out of focus and one when in focus. Absolute focus is thereby attained. Double exposure, and nearly all the mistakes



The simple apparatus set up for slide-making

that even the careful photographer sometimes commits, are automatically made impossible. The exposure meter, through its electric eye, gives directly the setting of shutter and aperture control, so that negatives of uniform density are certain, and failures through improper timing are entirely eliminated.

The camera uses 35mm. moving picture film, which, with the mechanical processes of development and printing available, makes possible the production of slides at a cost of about three cents each. This assumes that the operator simply makes the exposure. If he wishes to undertake the work of development and printing, the cost can be reduced one-half. Prosaic as these statements of fact may seem, they explain the possibilities of immeasurably greater satisfaction and pleasure in general photography and in slide making for visual instruction, than have hitherto been attainable.

For the purposes of general photography this camera and exposure meter develop, first of all, a certainty of technically perfect pictures. Second, they slip in the pocket so readily, and function so graciously, that they invite use and further continually the stimulation of observation and the growth of artistic appreciation. Perhaps, we may see here their chief value.

The every day uses of this equipment in general photography for progressive workers in any field, are so many that only a catalogue of some of them can here be given.

Permanent pictorial, film-strip, records of all activities in any field, in doors and out. Pictures from train, car or plane. With the larger, interchangeable lenses, without the use of flood or flash lights,—for which, however, convenient devices are provided,—photography in home, office or theatre is easy. Many of the so-called "candid" illustrations of magazines are made with this equipment. Photographs of office-force, employees, students, etc. These can be made at the rate of fifty to one hundred an hour, without undue hurry.

Photographs at different times to show changes in posture and physical development of students. Series of pictures showing gestures and general appearance in public speaking, gymnastics, singing, etc.

Nature Photography. Successive pictures of birds, animals, etc. as you gradually approach, made possible by the speed of film and shutter adjustments.

Important and valuable as are the procedures already described, it is in the field of copying and bench photography that the teacher will find greatest satisfaction, for with this apparatus the production of good slides from varied materials is simple and practical. The accompanying illustration shows the set-up of the necessary equipment for this work and is largely self-explanatory. The camera rests upon a sliding horizontal bed fitted with direct ground glass finder, which is moved to the right for the exposure after focusing. If material copied is uniform in size, no change in adjustment between exposures is necessary, and it is not difficult to make twenty-five or more copies in half an hour. Vertical adjustment, extension tubes and front lenses, provide for different sizes of pictures or objects to be photographed, and for the enlargement of small cuts, if desired.

The operations described are not difficult, and the surprising ease with which perfect slides can be produced must be a satisfaction to anyone who has worked with any other method I know. With the set-up illustrated, using two 100 watt lamps, film 23, aperture 3.5, and an exposure of 1/20 second, uniformly good copies are almost certain.

In the making of slides by copying for help in the teaching of different subjects, the subjects to be photographed are so numerous that only brief hints can be given.

News strips of the best pictures and maps of newspapers and magazines. Copies of maps, plates, charts, etc., from rare books and sources difficult of access. Minute, half-inch cuts, may be made serviceable as six foot projections on the screen. Charts, maps, outlines of all kinds, made by teacher or student. Photographs of music with themes and other features prominently indicated. Reproductions of words and music of

*Most of the apparatus mentioned in this article is the product of E. Leitz, Inc.

Victrola records to be shown on the screen as the music is played. Film-slides of charts, maps, etc., made with white ink, or white carbon paper on black paper. This is an exceedingly useful device for the negative strip may be used directly in projection, giving the usual black on white image. Negatives made from ordinary black-board work may also be used directly as slides.

Photomicrographs as well as life-size reproductions are easily made with this apparatus. This opens a fascinating field for photographic records of successive movements or developments of the objects under observation.

Photomicrography is a long word, but should deter no one who uses a microscope from obtaining stereopticon slides of good quality, for it can be done with utmost ease. Set the microscope under the camera in position for copying, camera lens removed, and make the exposure. In making the accompanying slides a Spencer 15 watt sub-stage lamp with blue screen, (shown at the side in the illustration) was placed directly beneath the field, using super-speed pan film, Sch. 23°, exposure 1/10th second.

Whether film-slides are made by out-of-door photography, by copying, or with aid of the microscope, a real joy in creative production may be found in sharing what one has made with students or friends. For this purpose the Umino projector is, I believe, the most nearly perfect instrument that has yet been produced. With it, may be used either single or double frame film-slides, in a vertical or horizontal position; also, in a moment, the machine may be adapted for two inch glass slides.

Four sample slides made for specific teaching purposes

While this stereopticon cannot, of course, give so brilliant an image on the screen as a projector using a 3¼ by 4 in. slide, and a lamp of high wattage, it is amply powerful for classroom work and will give a three foot picture in a room amply lighted for note-taking, or a six foot picture in a darkened room, either of which will compare favorably with the work of any machine; and it should be remembered, that because of the extreme compactness of both camera and projector, you can easily hold both in your hand, or coat pocket. They may go with you on all excursions, and anywhere your car will furnish current for the showing of pictures.

For the most efficient and pleasing results in the use of stereopticons, a pair of matched instruments is all but necessary, and indispensable for three dimensional work which standard accessories make practical. By the use of a rheostat, the annoying movement in the changing of slides is avoided, one image fading into another. With color screens sunrise and sunset effects may be produced. Comparison of objects is made possible, as well as the use of maps beside picture material, which should be a regular procedure in visual teaching. By the process already described, it is easy to make a series of film-strip maps and charts to be used on the screen beside the illustrative material of any series of film-strip or glass slides.

It should not be overlooked that this stereopticon, within its limitations of power, projects glass slides as well as any projector. It does require two inch slides, but they are no more difficult to make than 3¼ by 4 in. slides and are less expensive. Unless hand-coloring is deemed essential, they are in every way the equal of standard slides in class room teaching.

The camera, projector, and accompanying devices, which I have described, have opened a new world of photography, one of its most important realms being that of visual instruction. The essential features of this new photography should not be overlooked; they are two: first, a range-finder built in the camera, which makes absolute focus a certainty, and second, a meter which removes guessing from the process of determining exposure, thus ensuring negatives of uniform density, a necessity in the satisfactory making of film-strip slides.

With the exception of the lamps for illumination, all the instruments necessary for general photography, copying and projection are shown grouped together: camera, less than six inches long,—projector, and carrying case, containing frame supports and pocket exposure meter. The equipment has limitless possibilities in color photography and other fields. There is a reasonable pride in possessing tools, which make scientific photography possible, and a satisfaction in the knowledge of their use, which together have produced an unusual fraternity of co-workers. They have a little periodical* in which they try to tell one another some of their secrets. Through the larger medium of the EDUCATIONAL SCREEN, I have tried to tell something of the little recognized value and pleasure of individual accomplishment in visual education, to be found with such equipment.

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*"Leica Photography", 60.

Activities of State Visual Education Agencies In the United States

(Continued from April Issue)

By FANNIE W. DUNN
ETTA SCHNEIDER
Professor of Education, and Research Assistant
Teachers College, Columbia University

EVEN within the range of visual materials offered primarily for instructional purposes, there is wide difference in value. A clear-cut distinction may be made between materials definitely developed to serve a recognized educational objective, and those issued for purposes of advertising. In the former the educational value is primary, in the latter secondary or incidental. This distinction is usually in the mind of the Visual Director, but inadequate financial support of the visual service may nevertheless prevent extensive use of the strictly educational material. Most of the free or inexpensive films found listed in catalogs have an advertising source. On the principle that half a loaf is better than no bread, some departments have performed their chief service in collecting and making easily available a selected list of free or nearly free materials, drawing these from the Federal Departments of Agriculture, Mines, War, Treasury, Interior, Navy, Labor, as well as from commercial or industrial advertisers. A distinction is usually made in the catalogs issued by Visual Education Departments between the two types of materials, but the advertisements of railways and industrial concerns generally constitute a large part of the offerings.

Industrial Vs. Educational Classroom Films

Notable as an exception to the general rule is the unequivocal stand of the Ohio State Department against the use of all advertising materials. A letter from the Director of Education of that department specifically calls the attention of superintendents and principals to, "the ill-advised, promiscuous use of advertising, or propaganda, slides, films, charts, exhibits . . . distributed 'gratis' to schools." The following citation from this letter gives the position of the writer.

"We must bear in mind that the schools are supported by taxes levied against all persons and companies, and we cannot advertise the products of one without seriously endangering our position with the others. Moreover, children are required by law to attend school, and we have no right to allow one, or any concern or utility, to take advantage of their assembling together to instill into their minds prejudices favoring particular products, or even groups of products.

"By the creating of a fairly adequate visual aid exchange-service, in which only material made solely for educational work is catalogued, we have given you the opportunity to avoid using advertising and propaganda material, which is supposed to be 'free', but which after all is the most costly of material, since, if it does nothing worse, it impedes the normal and healthy development of the production of visual aids solely for educational work, by presenting unfair competition to such production. Bear in mind that textbooks are not produced by advertisers, and it would be a sorry day for the schools were this so. It will not be a happy day for visual instruction until the so-called 'free' advertising slide and film is rejected by the school authorities as definitely as the theaters long ago rejected them."

Materials loaned by the University of Kentucky, on the other hand, are largely if not altogether furnished by industrial and commercial organizations, but have been, according to its catalog, "compiled at great care for their educational value, the advertising in practically all instances being restricted to the name of the distributing organization."

The University of Missouri classifies its motion pictures in three groups, A—strictly educational; B—industrial or scenic, but containing no advertising; Z—industrial and containing some advertising, yet regarded as of sufficient educational value to be recommended for classroom use and auditorium programs. Its catalog is arranged in tabular form, films being listed in alphabetic order, the title followed in each case by the key letter, A, B, or Z, and by the name of the producing agency.

Kansas arranges its list of motion pictures in two groups, the first including strictly educational subjects, and the second composed of industrial and scenic. The majority of the films in the latter group "have been furnished by industrial organizations and government departments," but some have been purchased from the United States Department of Agriculture.

Mr. J. E. Hansen, director of the Bureau of Visual Instruction of the University of Wisconsin states the limitations of the free materials as follows:*

"Although free films have much educational value sometimes, they should be used with discrimination, for most of them are produced for advertising purposes. It costs many hundreds and often thousands of dollars to produce a single one-reel film, and such expenditure usually is made with the expectation of an adequate return from increased sales or from the shaping of people's attitudes and ideals to accomplish definite purposes. Industrial films give little or no at-

**Handbook, Visual Instruction in Our Schools*, 1934. Bureau of Visual Instruction, Madison, Wisconsin.

tention to the geographic aspects of industry which are so essential in the school study of industries. They stress the factory processes and selling largely. As for government films, most of them now available have not been produced for elementary or high school classroom instruction; they are excellent for farm meetings, engineering groups, public health nurses, and other adult groups."

Mr. Hansen recommends that smaller school systems, which cannot maintain visual aids libraries, secure educational films by rental from the numerous commercial firms which have films for rent at prices ranging from $1.25 to $3.50 per reel per day. The Wisconsin Bureau, however, has available for loan in the state a number of educational films upon payment of nominal service charges.

Aids to Teachers' Selection From Catalogued Aids

There is considerable difference among the various Visual Aids Departments in the proportion of "strictly educational" films at their disposal. Some departments, for lack of financial support are forced to include a large amount of the free materials. They assist borrowers, however, as far as possible in discriminating use of such materials by means of various devices.

(a) By Discrimination Between Industrial and "Strictly Educational" Films

Arizona distinguishes by an asterisk those films which are accompanied by teachers' guides. Illinois, which receives its films from the schools as contributions to its cooperative service, designates which are Eastman Teaching Films. Wisconsin distinguishes Eastman films from the others, and marks a (*) after each film which is accompanied by teachers' guides. The University of California lists films "recommended for classroom teaching" separately. Some of these are accompanied by manuals. Ohio State films for distribution are made up only of Eastman films, so that no designation is necessary.

Other states and institutions which separate strictly educational films from industrial or scenic are:

Oklahoma, Kansas, Colorado, North Dakota, Missouri, Utah, University of Iowa, Minnesota.

(b) By Annotations

Annotations as an important aid to selection on the part of borrowers are used with varying degrees of efficiency in the catalogs of Visual Aids Departments. Some catalogs or lists contain no annotations, an omission which must seriously detract from the serviceableness of the materials. Slides may be intelligently chosen from title alone, but a film which includes many episodes and a multitude of single pictures needs some description in addition. Among State Departments whose catalogs are particularly well annotated may be mentioned the University of Texas, the University of Wisconsin and Indiana University.

(c) By Organization According to Subject Matter

A few departments assist teachers in selection of materials by organization of listings in relation to purpose. Thus, the University of Arizona, which distributes silent motion picture films, both 16mm. and 35mm., film slides, and glass slides, organizes its catalog in numerous categories, listing under each all the visual aids it has available on that topic. Categories include Agriculture, Civics and Citizenship, Feature Films, Geography (further classified by continents), Health Education, History, Home Making, Industry and Business (with sub-classifications), Nature Study (with sub-classifications), Recreation, and Science (with sub-classifications). The available materials under a category vary from two 16mm. reels of silent film for "Fishes," to 42 reels of 16mm. and 29 reels of 35mm. silent films, 17 sets of film slides, and 9 sets of glass slides, under "The Geography of North America." Teachers desiring material on any large topic can thus turn at once to the proper classification and discover at a glance all the visual aids for that purpose to be obtained from the Department. The Ohio State catalog has a similar arrangement.

(d) By Information in Teachers' Guides

Teachers' guides, issued by some departments, may take the place of or supplement annotation. Thus, the slide sets of the University of Wisconsin are not annotated, but most of them have accompanying typed or printed notes, which will be sent in advance upon request; Indiana University provides in its catalog a detailed description of each film, and in many cases provides also a teaching manual. These manuals, it should be noted, are primarily designed to promote effective instructional use of the visual materials, their value as aids in selection being incidental or secondary.

Section III.

Variety of Material as Affected by Financial Competence

Cooperative Plans

Materials afforded through Departments of Visual Education necessarily vary extensively according to the adequacy of support afforded them. Very worth-while aids, however, are made available by some departments with little financial competence, but with able and constructive leadership. Cooperation has been employed in Illinois, Kansas and Colorado, to provide more extensive service than would otherwise have been practicable.

Illinois Plan

In Illinois a cooperative plan has been worked out between the central distributing agency and the schools receiving the service. By this plan, developed at the State University under Dr. Russell T. Gregg, assistant principal of the University

(*Concluded on page* 147)

Film Production Activities

Another Release in College Series

A new scientific film, designed to assist students of mechanical drawing to visualize actual machine operations, has been completed by the division of visual education of the Massachusetts Institute of Technology. The film, entitled *The Graphic Representation of Machine Operations,* was produced in cooperation with members of the Institute's drawing staff.

The picture opens with a detailed view of a machine drawing just completed by a student in the drawing room. A machinist is then shown performing each fundamental operation called for in the drawing, including drilling, tapping, boring, counterboring and countersinking. Lathe and hand work are also depicted, as well as the operations of planer and gear cutter, and external and internal thread cutting, both in the thread cutting machine and on the lathe. The film closes with a repetition of the original drawing, which gradually fades into a picture of the completed machine.

Three motion pictures which presented for the first time in visual animated form the behavior of an electric wave as it travels through a 250-mile transmission line were previously released by the division.

A New Peace Picture

A new anti-war motion picture, *Why,* produced by Good Will Pictures Inc., is being distributed by the Y. M. C. A. Motion Picture Bureau. In simple animated cartoon form the film explains the cause and prevention of war, graphically showing the futility of competitive armament and the tremendous waste involved. It presents a powerful appeal for peace and deserves the widest possible use in schools and educational institutions, churches and religious organizations, civic, women's and social clubs, and other serious, intelligent groups.

A two-reel silent version is available in 16 mm. and 35 mm., and a one-reel sound in 35 mm.

New Film for Health Campaign

A new health motion picture, *The Tip-Tops of Peppyland,* has been added to the New York State department of Health's already large collection of health educational films. The film was produced by the Bureau of Milk Publicity, Department of Agriculture and Markets, for use in connection with the state-wide "Drink More Milk Campaign."

Three clowns—Health, Pep and Strength—demonstrate the advantages of milk. Flashes of actual persons engaged in sports, business and other activities, combined with animated cartoons of elflike characters, cleverly illustrate the importance of milk as a principal source of the food elements essential to proper growth and development of the human body. Pictures of the dairy industry show the sanitary methods essential in each step of the production and distribution of safe milk, from the farmer's pail to the consumer.

First Two of Geology Films Completed

Two films, *Work of Rivers and Atmosphere Gradation,* in the University of Chicago Physical Science Series have been completed by the Erpi Picture Consultants. They are the first of six talking pictures on Geology which are being prepared under the supervision of Dr. Carey Croneis, University of Chicago, and other specialists. The series should provide a comprehensive survey of Geology as it is offered in introductory courses. The films are designed to contribute especially to general or survey courses in the physical sciences which are now rapidly gaining in favor in high schools, colleges and teachers colleges.

Agencies for 16 mm. Sound-on-Film

Walter O. Gutlohn announces three more agencies who will handle his 16 mm. sound-on-film library, namely: Film Library of New England, 239 Columbus Avenue, Boston, Massachusetts (States of Maine, New Hampshire, Vermont, Rhode Island, Massachusetts, Connecticut); Mr. Howard Hill, 1043 Sixth Avenue, Oakland, California (States of California, Oregon, Washington, Montana, Idaho, Nevada, Utah); Associated Screen News Limited, Western Avenue at Decarie Boulevard, Montreal, Canada (Dominion of Canada).

Pupils Produce a Movie

A one-reel melodrama of the Stone Age, titled *The Brothers of Altamira,* was written, acted, and produced by tenth grade pupils of the Lincoln School, Columbia University, in conjunction with a course integrating art, history and English. The story, based on drawings found on walls of caves near Altamira, Spain, portrayed the life of the Cro-Magnon tribe who lived in the Pyrenees some 50,000 years ago, and showed man's eternal conflict with the forces of Nature. The pupils also constructed the scenery, an especially effective piece of which was an erupting volcano done in model. The entire production cost fifty dollars. Elias Katz, who is particularly interested in the educational possibilities of motion pictures in the field of art, filmed the enterprise.

The Film Estimates

Being the Combined Judgments of a National Committee on Current Theatrical Films
(The Film Estimates, in whole or in part, may be reprinted only by special arrangement with The Educational Screen)
Date of mailing on weekly service is shown on each film.
(A) Discriminating Adults (Y) Youth (C) Children

Bride of Frankenstein (B. Karloff, C. Clive) (Univ.) Last word in spine-chillers. Preposterous mixture of supernatural and artificial horrors absurdly conglomerated with massive, pseudo-scientific apparatus. Fantastic sequel that outdoes Frankenstein in nerve-wrackings for those that want them. 4-23-35
(A) Ridiculous (Y) Gruesome (C) By no means

Car 99 (Fred Mac Murray, Guy Standing, Ann Sheridan) (Para.) Crime melodrama with much chasing, escape, artificial comedy, hectic romance, but largely a detailed and localized portrayal of the elaborate organizations of Highway Police in the State of Michigan. Healthy thrills. 4-16-35
(A) Hardly (Y) **Good thriller** (C) Very exciting

Case of the Curious Bride (W. William, M. Lindsay) (1st Nat.) Complicated, absorbing murder mystery solved by clever lawyer-detective and his "modern" Secretary. Thinking her first husband dead, heroine marries second and gets involved in murder of first. Some dubious ethics and genteel unconventionality. 4-23-35
(A) Good of kind (Y) Perhaps (C) No

Chapayev (Russian production) (Amkino) Grim, realistic portrayal of Russian peasantry and the Great War, with Chapayev, guerilla leader, dominating thought and action of his people. Unusual among Russian films for dealing vividly and humorously with character rather than masses. 4-16-35
(A) Unusual (Y) Depressing (C) No

Evergreen (Jessie Matthews) (British-Gaumont) Delightful, English-made musical comedy with fascinating heroine, dancing superbly, and playing two roles as former famous music-hall star and daughter who assumes mother's identity. Amusing mix-up over father, husband, suitor. Deft, intelligent fun. 4-30-35
(A) **Excellent** (Y) **Good** (C) Beyond them

Four Hours to Kill (R. Barthelmess) (Para.) Sensational, well-knit melodrama of tangled doings of checkered characters, all gathered in theatre lounge. Jail-bird hero solves all by killing his enemy and being killed by police. Good suspense but very dubious ethics. 4-30 35
(A) Good of kind (Y) Doubtful (C) No

G Men (J. Cagney, M. Lindsay) (MGM) Gives some idea of training for secret-service work, but mostly tense, exciting portrayal of government fight against gangsters. Bloody massacres, bank robberies, with machine-gun killings by both sides. Some exaggerated heroics. Cagney in sympathetic role for a change. 5-7-35
(A) **Very good of kind** (Y) Grimly exciting (C) No

Go Into Your Dance (Al Jolson, Ruby Keeler) (1st Nat.) Musical revue comedy-drama with elaborate song and dance features, much singing by Al, and dialog entirely slang. Backstage story of conceited star who learns his lesson. Fairly convincing save one or two sensational and unwholesome episodes. 4-23-35
(A) Depends on taste (Y) Not the best (C) No

Hold 'Em Yale (Patricia Ellis, C. Romero) (Para) Artificial, overdrawn Damon Runyan story of gang of ticket-broker thugs and scatter-brained, uniform-dazzled heiress. When her idol deserts, rest of gang marry her to hero after all. Yale-Harvard game as setting for climax and excuse for meaningless title. 5-7-35
(A) Stupid (Y) Certainly not (C) No

I'll Love You Always (Nancy Carroll) (Columb) Devoted young country couple fight poverty in city in rather appealing style. Then he steals for her sake, serves jail term, and sentimental reactions of all concerned brings reward for his achievements and happiness for the pair. Queer ethics. 5 7-35
(A) Ordinary (Y) Not good (C) No

In Spite of Danger (Wallace Ford, Marian Marsh) (Columbia) Unreal melodrama with extreme villainy and tensely exciting moments. Hero has series of miraculous escapes from accidents planned by rival in trucking business. Despite abundance of action, story drags. Thoroughly exaggerated throughout. 4-23-35
(A) Stupid (Y) Poor (C) Poor

It's a Small World (Spencer Tracy, Wendy Barrie) (Fox) Silly title for commonplace film of hero and heroine, marooned in car crash, who first fight, then fall in love. Partly crazy farce, but some amusing, human situations. Very deft character role by Wendy Barrie as the heroine. 4 23-35
(A) Hardly (Y) Perhaps (C) No

Men of the Night (Bruce Cabot, Judith Allen) (Columb.) Detective-hero, a woman-hater, chases incessantly crooks of all kinds infesting Hollywood. Succeeds none too well until lunch-counter heroine helps him, when his ideas on women change in time for the obvious conclusion. 4-30-35
(A) Mediocre (Y) Doubtful (C) No

Mr. Dynamite (Edmund Lowe) (Univ) Another murder-mystery melodrama running true to usual, with mild variations. Three murders center around famous musician and concealed, death-dealing time-gun. Baffled district attorney indebted to wisecracking detective for solution. Too involved at times. 5-7-35
(A) Mediocre (Y) Better not (C) No

Mystery Woman (Mona Barrie, John Halliday) (Fox) Rather different spy drama, ably acted and produced. Her husband wrongly accused of treachery to government, loyal wife becomes smooth spy. After many dangerous adventures and suspenseful situations recovers document which clears him. 4-30-35
(A) Fair (Y) Not the best (C) No

Notorious Gentleman (Charles Bickford, Helen Vinson) (Univ.) Violent murder story of jealous hero, a criminal lawyer, who shoots rival in view of audience at start, puts over clever court defense to evade detection, but romantic reversal brings disclosure. Gripping picture of sordid conduct. 4-30-35
(A) Depends on taste (Y) Better not (C) No

One New York Night (Franchot Tone, Una Merkel) (MGM) Engagingly naive Westerner hero allots day at New York hotel to pick wife. Hilarious murder complications keep him and hotel busy till he solves all and wins clever telephone-girl heroine. Merry mystery farce of much human interest. 4-30-35
(A) **Amusing** (Y) **Excellent** (C) Exciting

People's Enemy (Preston Foster, Lila Lee) (RKO) Elementary melodrama involving low-brow criminal jailed for income-tax-fraud, his deserted wife, and the doings of lawyers over his release. Lawyer-hero tries honorably to free prisoner, loses plea, and wins the wife for himself. 4-16-35
(A) Mediocre (Y) No (C) No

Princess O'Hara (Chester Morris, Jean Parker) (Univ.) Damon Runyan yarn hokumized. Heavy-jowled hero tries to look dynamic as big boss and leader in a taxi war, with side-line activities in racetrack, romance and philanthropy. Banal dialog, dull acting, absurd conclusion make futile mess. 4-30 35
(A) Feeble (Y) No (C) No

Private Worlds (Claudette Colbert, Charles Boyer) (Para.) Skilled direction, fine acting of clinical romance inside elaborate, modern insane asylum. Officials, doctors, nurses, patients struggle against obsessions and insanity. Modern therapy and love win out. Serious but inappropriate subject. 4-16-35
(A) Unusual (Y) Unsuitable (C) No

Reckless (Jean Harlow, Wm. Powell, Franchot Tone) (MGM) Obviously from Libby Holman case. Glamorous torch singer, after wild party, finds self wife of rich playboy who proves cad. After his suicide she regains success and finds true love. Has some moments but mostly a poor heaven for the stars it boasts. 4-23-35
(A) Depends on taste (Y) Unwholesome (C) No

Red Hot Tires (Lyle Talbot, Mary Astor) (1st Nat.) Regular auto-racing thrills with crowds, flying cars, spectacular cracks-ups. Racing hero is framed by racing rival who also loves heroine. Prison-escape, last-minute reprieve, and so on to happy ending. Unobjectionable. 4-16-35
(A) Hardly (Y) Fair thriller (C) Hardly

Rendez-vous at Midnight (Ralph Bellamy, Valerie Hobson) (Univ.) Murder-mystery melodrama on usual lines but novel when heroine tries original trick to compel visit from her fiance', the really conscientious district attorney, and gets herself gravely suspected. Uneven, with good spots. 4-16-35
(A) Depends on taste (Y) Perhaps (C) No

Richelieu (George Arliss) (UA) Another polished portrayal of historical personality by Arliss against lavish background of 17th Century France. Lytton's play modernized to advantage. Certain liberties with history compensated by convincing roles and sustained interest of plot and dialog. Fine cast. 5-7-35
(A) **Excellent** (Y) **Very good** (C) Beyond them

Runaway Queen, The (British production) (UA) Lively mythical-kingdom romance of deposed queen and revolutionary leader, meeting when both are fleeing incognito. Tuneful music, smooth acting, continental-style comedy of mock formality in dialog and delicate burlesque. 4-16-35
(A) Good of kind (Y) Fair (C) No interest

Sing Sing Nights (Conway Tearle, Hardie Albright) (Monogram) Meaningless title for feeble hash about great globe-trotting reporter who lures women from home, is shot by three offended husbands who all confess the murder. Actual guilty one determined by lie-detecting machine. 4-16-35
(A) Mediocre (Y) No (C) No

Spring Tonic (Lew Ayres, Claire Trevor) (Fox) Heroine, bored with prosy fiance', runs away. After senseless complications—philandering Romeo, bootleggers, vacuous newspaper reporter, an escaped tiger—she is glad to come back. Even the actors seemed uneasy in the idiotic mess. 4-23-35
(A) Absurd (Y) Poor (C) Poor

Star of Midnight (Wm. Powell, Ginger Rogers) (RKO) Entertaining, mystifying murder story in same gay, lively mood as "The Thin Man." Powell a debonair lawyer with flair for solving crimes, between drinks with unconventional heroine. Sophisticated, amusing dialog, and smooth acting. 5-7-35
(A) Good of kind (Y) Better not (C) No

Ten Dollar Raise (E. E. Horton, Karen Morley) (Fox) Pleasing little picture about timid, pin-saving bookkeeper, without raise for 16 years. Hopelessly in love but unable to marry on salary, he falls into wealth and buys out his boss. Horton's customary skillful comedy. 5-7-35
(A) **Amusing** (Y) **Good** (C) Perhaps

Unfinished Symphony (Foreign cast) (British Gaumont) Tragic, thwarted love for his pupil as reason for Schubert's great unfinished work is largely fiction. But picture is notable for much continental charm, pictorial beauty, and especially for the playing of the great Schubert music throughout. 5-7-35
(A) **Very good** (Y) **Excellent** (C) Probably good

Unwelcome Stranger (Jack Holt, Mona Barrie) (Columb.) Losing heavy bets through racetrack crooks, big racing addict ascribes his bad luck to appealing orphan boy brought home by his wife for adoption. Boy wins big race and melts big man. Sentimental, glamorous family life built on track profits. 4-30-35
(A) More or less good (Y) Perhaps (C) Doubtful

Wedding Night (Anna Sten, Gary Cooper) (U.A.) Gay life and a gay wife send once successful writer back to native Connecticut farm penniless. Re-inspiration in strong, convincing romance with Polish neighbors' charming daughter, already betrothed to father's choice. Artificial ending mars whole. 4-23-35
(A) Mostly good (Y) Very doubtful (C) No

Among the Magazines and Books

Conducted by MARION F. LANPHIER

The Instructor (March, '35) "School Budgets and Teaching Films," by P. R. Meinhard.

"Today, educators in general are convinced of the efficacy of motion pictures. It is evident that films will play an increasingly vital part in the education of the future, for their intrinsic pedagogic value has been proved again and again. Assuming that pictures are correctly used, they aid in speeding up, vitalizing, and making effective the brimful, complicated curricula of our up-to-date schools, and in so doing they substantially lighten the teacher's load. The accelerative power of motion pictures takes on surpassing importance" after the retardation of retrenchment. If the classroom film is a short-cut, scientific management demands that it be adopted. Since the type of films has been reduced in size, a comparatively smaller investment eliminates pupil repeaters who do not now react.

"The machine of education has everywhere been seriously slowed down. Might it not be advisable to consider whether we should ever go back to the old system and program? To many it seems that present conditions provide an excellent opportunity to revamp and modernize the educational machine —to bring methods and media more nearly up to the present level of scientific progress."

Intercine (February, '35) The entire issue is devoted to television which it is predicted will lead to complete success in color and stereoscopy, when reality and not fantasy will be screened. "The opportunity of seeing with what tenacious efforts each people seeks to overcome its daily difficulties" will serve the cause of peace far better than propaganda. Mr. Rudolph Arnheim compares the physiology of the senses of seeing and hearing in a most illuminating manner, incidentally alluding to the conception of time as the fourth dimension. Television does not need to be limited to the reception of images on a small mirror, as they can be reprojected on a screen of the desired size.

Giovanni Gallanti presents a review of television experimentation, and predicts telecinematography since films are more satisfactorily transmitted than direct pictures. News reels, made day by day, can be televised during the evening. "Direct transmission of actual happenings cannot at present be relied upon, apart from pictures sent from especially fitted-out studios." The Postmaster General of England has announced that a central television station is to be established in London during the present year, costing nearly a million dollars. Home television sets will cost about $250. to $300.

Benn Hall treats the mechanical and electrical scanning of images in a manner to bring romance into television. The research work of the Russian scientist, Zworykin, is simplified to the point of popular reading. Microscopic photo-electric cells, to the number of 3 million are placed in a 4 by 5 inch mica sheet, and perform the function of the 137 million rods and cones of the eye. The new process of electrical memory is described. Vision will be extended to include the ultra-violet and the infra-red wave lengths. Television in the theatre may be utilized for important "news flashes." The difficulties of cost, supply of entertainment material, and band width of frequencies are discussed. Dr. Kurtz of the University of Iowa has represented thirteen fields of knowledge in his programs during the past two years. Corrado Pavolini, of the staff of Intercine, predicts that journalism will be modified by television, which will handle the immediate news, and the press will deal with formulations and comment.

Hygeia (February, '35) "Health Education in Arizona," by Forrest E. Douchette.

The Arizona State Board of Health organized a division of health education in 1933. Any school, club, town or city of the state, which might wish to have a "health day" or "health week" program could be served by the State Board through a representative, who would bring films and a projector,and give talks. Notwithstanding a 30% reduction in operating funds, a projector was bought and paid for. The projector was of the 16 mm. type, the screen was 45 by 60 inches; and two extra lenses, 1 and 3 inches, were provided. For transportation, waterproof canvas was needed, and waterproof bags for films and several lengths of extension cord. One 16 mm. film was purchased, and four films were loaned by the New York Life Insurance Co. Programs were given in theaters, public and private schools, to luncheon and civic clubs, P. T. A.'s, the Indians of the Gila River and Navajo Reservations, and to men and boys "on the bum" from every state in the Union and and now in transient camps. The audience at one time was 450 Navajo Indians; by traveling south 300 miles, 500 Pima Indians, sitting on the ground, out on the desert, marvelled at the movie miracle. Two more films have been purchased, and eight have been loaned, in some cases for the local program. The entire state has been traversed, over 7,000 miles being covered. "The original 500-watt lamp that came with the machine traveled more than 5,000 miles and was used showing films to more than 25,000 persons before it

burned out." The equipment is not rented or loaned to anyone. The total number of observers is 38,000 reached in five months. This is almost one-tenth of the total population of the state.

The High School Journal (March, '35) "Education in the Social Sciences and the New Deal", by Dr. Wallace E. Caldwell, University of North Carolina.

In an article dealing with the Report of the Committee on the Study of the Social Sciences, the writer makes some trenchant statements pertinent to visual methods. If the student is to have an actual experience which will enter into his own life, he must see the facts which he is acquiring as "pulsing and throbbing pieces of life . . . Visual education, the display and discussion of pictures, is one means in which I have personally a strong belief of giving life to facts. The handling of an Indian arrowhead or axe, with an attempt to reconstruct how it was made and how it was used, a visit to an Indian village site . . . or the study of Indian encampments made by artists of colonial times will do more to vitalize a study of the Indians than all the facts in the textbook."

Camera Craft (February, '35) "The Future of Amateur Talkies," by William A. Palmer.

The camera that will record sound is an improved tool for the movie maker, but sound movies have limitations that make it improbable that silent pictures will be displaced; just as color photography, although at times wonderfully successful, has limitations imposed by lighting conditions and by the suitability of the subject. Sound pictures require much more preparation and planning than do silent pictures. Cutting is greatly restricted, as one has to be mindful of the sound track. Talkies are primarily visual, and the techniques for the silent film cannot be suppressed. The amateur is apt to stress sound recording, and fall down on the essential, the picturization, which makes use of the shifting viewpoint of the camera. Another error is to think that sound must be a continuous accompaniment of action. Adding sound to an old silent picture is clearly explained, including the transferring of sound from a synchronizing phonograph to the film sound track. Any movie maker, except the truly professional, can surely profit from this clear exposition.

Building America, a new monthly magazine published by the American Society for Curriculum Study with the Assistance of Lincoln School of Teachers College, Columbia University, and the Federal and State Government through the Works Division of the Emergency Relief Bureau of New York City.

This new series of picture texts is designed for Junior and Senior high schools, colleges, educational groups sponsored by the Y. M. C. A. and the Y. W. C. A., CCC Camps, and other adult educational groups. Each unit is devoted to photographic studies of some modern social problem, and may be used as text or supplementary text material. The present status of our life will be described, and the inherent possibilities in our wealth, power, and skill, for improving the quality "of American living, both materially and culturally." The units "adapt themselves to all levels of maturity and intelligence. . . . they bring subject matter into the experiences of the students."

Dr. Mendenhall, of Teachers College, who is the editor of the units, says, "*Building America* picture studies are an answer to the insistent and widespread demand of educators for a new type of classroom material that will give students a working knowledge of social and economic principles and institutions . . . . The present trend toward closer integration of all agencies in our interdependent world points to a society that will demand the highest informed intelligence on the part of our citizens." Dr. Newlon, Director of Lincoln School, states, "The pictorial organization of student material in this series is a practical demonstration of the effectiveness of pictures as materials of instruction to supplement the inadequacy of language in dealing with social problems."

The first unit, *Housing*, has three-fourths of its 28 pages devoted to 58 photographs and three picture graphs, one-fourth being devoted to textual description. The latter shows the "relationship of one body of facts to other facts and the significance of all facts to human welfare." The photographs and text present a unified and comprehensive story. The causes and effects of bad housing are dealt with, the raw materials of construction, and the workers. "Planned" housing is represented by municipal improvement both in America and abroad. The Federal Housing Acts are also shown as they have operated. Subjects to be treated in subsequent issues are: Food, Men and Machines, Transportation, Health, Communication, Power, Recreation, and Youth Faces the World. A complete Teacher's Guide accompanies each unit with many suggestions for problems to be solved and activities to be performed.

Photo Art Monthly

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Department of Visual Instruction Notes

Conducted by ELLSWORTH C. DENT, Secretary

Summer Meeting of the Department

Women's Club Auditorium, Denver, Colorado, July 1-2

The 1935 meeting of the N. E. A. at Denver, officially scheduled for one short week in July, will, for thousands of teachers, become an all-summer, all-Colorado vacation, for Denver is the heart of the world's great vacation land. Two national parks are located in Colorado. The Rocky Mountain National Park, of which Estes Park is perhaps the best known spot, is only 90 miles from Denver. Seventy-five miles south of Denver is the Colorado Springs region, famous for Pike's Peak and the Garden of the Gods. From Colorado Springs, the motorist may drive by way of scenic Corley highway or Ute Pass to Cripple Creek, the one-time famous mining center of the state. If a longer motor trip is desired, the convention-goer may wish to drive to the Mesa Verde, land of the Aztecs, in southwestern Colorado. Here, the homes of the Cliff Dwellers of two thousand years ago may be entered.

There is a possibility of an outing of the members of the Department of Visual Instruction under the direction of Robert Collier, Jr., Denver, Colorado, Local Chairman for the Department of Visual Instruction Conference, Director of Science, South High School, Denver, and National Parks Guide. Plans for this outing are being made. If the outing materializes it will be held on July 5, 1935.

The sessions of the Department of Visual Instruction will be held in the Auditorium of the Women's Club on the afternoons of July 1st and 2nd in conformity with the practice of giving the morning and evening meetings to the N. E. A. general programs. The general theme of the discussions will be "Visual-Sensory Aids as a Coordinating Factor in the Integrated School."

The advance program of speakers, events and activities, received from Mr. Wilber Emmert, President of the Department and Presiding Officer, promises a real live Visual Education Center. On Monday afternoon Mr. L. K. Meola will tell what is being done at the John Hay High School in Cleveland with noon-day movies. A timely subject is to be discussed by Mr. Henry Klonower of the Pennsylvania State Department of Public Instruction, namely, "The Role of a Visual Aid and Sensory Technique Course in Teacher Preparation." The services of their Departments in the Visual Education programs of their states will be explained by Mr. H. L. Kooser of the University of Iowa, and Mr. Lowry Nelson of Brigham Young University. Mr. Merrill Bishop, of the San Antonio Schools, will describe "A Course in the Correlation of the Arts." Mr. William H. Dudley will present a plan for "Systematic Visual Education in the Average School."

Tuesday afternoon will be devoted to discussions of visual materials and methods which have proved effective, including—"Characteristics in Still Pictures for Instructional Use in the Classroom", by Miss Lelia Trolinger of the University of Colorado: "The Use of Cartoons and the Chalk Talk in the Classroom," by George Ream of Albuquerque Senior High School; "The Adaptation of Art to Classroom Work," by Edna Melstern of Central Grade School, Pueblo. A report on a Science Night Program at the South High School, Denver, by Robert Collier, Jr., and a classroom demonstration on the use of the opaque projector by Miss Inez C. Larson of Alcott School, Denver, will complete the program.

A display of visual materials will be on exhibition in the Women's Club. This will feature pupil-made materials for the various school subjects. A number of the schools in Denver will have individual exhibits of work done by the pupils. If teachers have some materials they would like to contribute to the exhibit, Mr. Robert Collier, Jr. will be glad to receive them.

The complete program of the meetings of the Department of Visual Instruction will appear in the June issue of this magazine.

Chicago Branch Spring Meeting

The Metropolitan-Chicago Visual Education Association held its spring meeting Saturday, April 13th, at the Palmer House from 10:00 A. M. to 3:00 P. M. with President Dr. H. Ambrose Perrin, Superintendent of Joliet Schools, presiding. The morning program consisted of a fascinating "Teaching Demonstration of Reading with Slides", conducted by Mrs. Mary A. McGady with her pupils from the Hookway School. During the noon luncheon meeting J. Ritchie Patterson, in Charge of Visual Education, Chicago Public Library, projected some selections from the splendid White Collection of hand-colored slides. Miss S. Naomi Anderson, Englewood High School, demonstrated simple and inexpensive slide-making methods. Various types of projectors were exhibited by F. G. Roberts of the Bell & Howell Education Department.

At the business meeting following, there was a discussion of the number of meetings to be held each year. It was finally agreed to hold two meetings for the school year 1935-36, one of these meetings to be held in the fall and the other in the spring. They are to be well-planned, all day sessions, with some class demonstration, some instruction on the value of the visual education and a demonstration of new equipment. Dr. H. Ambrose Perrin of Joliet was re-elected President and Miss S. Naomi Anderson Secretary-Treasurer. Three members of the executive committee are to be appointed by these officers. About twenty-five new members were registered.

DeVry Summer School of Visual Education

June 24 to 28 inclusive, at Francis W. Parker School, Chicago

PROGRAM

Director, A. P. Hollis, M. S.,
Author "Motion Pictures for Instruction"

Monday, June 24, 1935

Introductory Remarks—President H. A. DeVry.

*Educational and Industrial Film Showings with Explanations by producer representatives—

"Our Debt to Mother Earth"—Sales Promotion Angles, E. O. Gray, Advertising Department, American Steel and Wire Company.

"Rhapsody in Steel"—W. K. Edmunds, Ford Motor Company.

Address and Discussion—The American Library of Visual Education—Miss Pat Paige.

Lecture on Birds—with Motion Pictures—Cleveland P. Grant, formerly with Field Museum.

*Round Table Discussion—Led by Mrs. Charles R. Holton, Chairman Motion Picture Department, Illinois Federation of Women's Clubs.

Principles of Sound-On-Film Systems — W. N. Littlewood, Director of Education, DeForest Training, Inc.

Features and Operation of a 35mm Portable Sound-On-Film Unit—Mr. J. G. Black, Engineer, Herman A. DeVry, Inc.

Tour to Art Institute.

Tuesday, June 25, 1935

*Educational and Industrial Film Showings, with explanations by producer representatives—

"Good Hospital Care"—In Sound—Dr. T. M. MacEarchern, American College of Surgeons.

"Conquering Desert and Jungle"—Mr. George Blake, Goodyear Tire & Rubber Co., Akron, Ohio.

Address—The Better Film Program of the National Parent-Teachers Association—Mrs. Robbins Gilman.

*Round Table Discussion — Led by Mrs. Elizabeth Richey Dessez—The Motion Picture Foundation of the United States of America.

Round Table Discussion—Led by Mr. Nelson Greene, Editor Educational Screen.

Features and Operation of a 16 mm. Sound-On-Film Unit—Instruction and Practice—Paul D. Hance, Jr., Engineering Staff, Herman A. DeVry, Inc.

Self-Liquidating Plans for Visual Education Equipment in Schools—W. E. Swartout, Emerson School, Maywood, Illinois.

Tour to Rosenwald Museum of Science and Industry.

Trips on Lake Michigan—The DeVry Yacht, "Typee".

Wednesday, June 26, 1935

*Educational and Industrial Film Showings

"Through the Centuries" (Part Showing) — Missionary Work of the Catholic Church—E. G. Hancock.

"Romance of the Reaper"—Mr. L. A. Hawkins, International Harvester Company, Chicago.

Address — National Film Institute — Dr. Edgar Dale, Ohio State University.

*Round Table Discussion—Led by Mrs. Chester Holt Greene, State Motion Picture Chairman, Ill. Congress of Parents and Teachers.

Address—Development of Photo Play Appreciation in Schools —Speaker to be furnished by Mr. Will Hays, President Motion Picture Producers and Distributors of America.

Recording Sound-On-Film—Paul D. Hance, Jr.
Principles and Demonstration—Instruction.

Address—State Wide Film Distribution in Wisconsin—J. E. Hansen, Chief Bureau Visual Instruction, University of Wisconsin.

Address — "Bricks Without Straw" — Mr. George Zehrung, Director Motion Picture Bureau, National Council Y. M. C. A., New York.

Tours to Chicago Academy of Science and Chicago Historical Society—Mr. J. L. Dvorak.

Visual Education Dinner and Entertainment at Webster Hotel—$1.25 per plate.

Thursday, June 27, 1935

*Educational and Industrial Film Showings—

Erpi Educational "Sound" Films—Miss J. M. Carter, University of Chicago Press.

Firestone Film—Mr. A. G. Weitzel, Firestone Tire & Rubber Company.

Address and Demonstration—Television is "Just Around the Corner"—U. A. Sanabria.

*Round Table Discussion—Led by Paul G. Edwards, Director Bureau of Visual Education, Public Schools, Chicago.

Business Session.

Address and Demonstration—"Social Values in Motion Pictures"—Dr. LeSourd, Dean, Boston University Graduate School.

Trouble Shooting in Sound Systems—Mr. J. G. Black.

Tours to Field Museum and Shedd Aquarium.

Motion Picture Lecture—"Looking Through Great Telescopes" (Ruroy Sibley, Producer—Director) Scientific cooperation by Professor Lee—Northwestern University.

Lecture by Almond Fairfield, M. A.,
Comedy and a March of Time
(Admission by Membership cards)

Friday, June 28, 1935

*Educational and Industrial Film Showings—

Culver School Film — Mr. Frank Balkin, Chicago Film Laboratory.

"Austin Roll-A-Plane"—Mr. H. F. Barrows, Advertising Manager, Western Road Machinery Co., Aurora, Ill.

Visual Education from the Museum Standpoint—Miss Amelia Meissner—Discussion.

Visual Education in Foreign Countries—C. O. Baptista, D. C. Beaulieu

(*It is not practical at this early date to assign a definite day and hour to the other speakers on the Film Showings and Round Table Conferences — These will be announced later.)

Summer Courses In Visual Instruction

Every effort has been made to secure from every State a complete listing of its institutions where visual instruction courses for teachers will be given this summer, together with instructors and titles of the courses.

Institution	Title of Course	Instructor
Alabama		
State Teachers College, Florence	Visual Aids in Geography	F. F. Cunningham
State Teachers College, Jacksonville	In connection with Geography classes	
State Teachers College, Troy	Visual Aids in Intermediate Geography	Loraine E. Hamil
Arizona		
University of Arizona, Tucson	Visual Education and Illustrative Technique	L. D. Klemmedson
California		
University of Southern California, Los Angeles	Fundamentals of Motion Picture Production	B. V. Morkovin
	Social and Psychological Aspects of Motion Pictures	B. V. Morkovin
State Teachers College, San Francisco	Visual Instruction	Anna V. Dorris
Colorado		
University of Colorado, Boulder	Visual Aids	Lelia Trolinger
University of Denver, Denver	Vitalizing Instruction through Visual Aids	E. H. Herrington
	Techniques in the Use of Visual Aids	W. H. Steele
Illinois		
Loyola University, Chicago	Visual Education	W. H. Johnson
Indiana		
State Teachers College, Terre Haute	Visual Education	H. A. Henderson
Kansas		
State Teachers College, Emporia	Visual Education	J. P. Drake
State Teachers College, Pittsburg	In connection with course on Biology Methods	J. A. Trent
Massachusetts		
Boston College, Chestnut Hill	Visual Instruction	J. A. Hennessey
Minnesota		
State Teachers College, Moorhead	Supervision Through Visual Aids	C. P. Archer
Missouri		
Teachers College, Kansas City	Methods in the Use of Visual Aids	Rupert Peters
New Jersey		
State Teachers College, Montclair	Visual Education in the Secondary Schools	E. W. Crawford
State Normal School, Newark	Visual Education in the Elementary Schools	E. W. Crawford
Rutgers University, New Brunswick	Visual Education	L. R. Winchell
Teachers College, Trenton	Visual Instruction	George Wright
New York		
State Normal School, New Paltz	Visual Education	J. J. Jenkins
Hunter College, New York City	Methods in Visual Instruction	Rita Hochheimer
Teachers College, Columbia University, New York City	Materials and Methods in Visual and Auditory Education	Fannie W. Dunn V. C. Arnspiger Cline M. Koon
	Research in Visual and Auditory Education	Fannie W. Dunn V. C. Arnspiger Cline M. Koon
New York University, New York City	Making Social Studies Graphic	D. C. Knowlton
	Laboratory Course in Visual Aids	John H. Shaver
	Practical Applications of Visual Aids	John H. Shaver
North Carolina		
Duke University, Durham	Visual Education	C. F. Hoban, Jr.
Ohio		
Western Reserve University, Cleveland	Technics of Geography Instruction (Use of maps, pictures, films, etc.)	Villa B. Smith
Utah		
Brigham Young University, Provo	Visual Instruction	F. Wilcken Fox
	Motion Picture Appreciation	F. Wilcken Fox

Pennsylvania

An extraordinarily large number of institutions in this state are to offer courses in "Techniques for Visual-Sensory Aids" during the coming summer. As the complete list of instructors was not available in time for this issue, we present merely the list of colleges where these courses are to be given.

Albright College, Reading
Allegheny College, Meadville
Beaver College, Jenkintown
Bucknell University, Lewisburg
College Misericordia, Dallas
Drexel Institute, Philadelphia
Duquesne University, Pittsburgh
Elizabethtown College, Elizabethtown
Geneva College, Beaver Falls
Gettysburg College, Gettysburg
Grove City College, Grove City
Immaculata College, Immaculata
LaSalle College, Philadelphia
Lehigh College, Bethlehem
Marywood College, Scranton
Mount Mercy College, Pittsburgh
Muhlenberg College, Allentown
Penna. College for Women, Pittsburgh
Pennsylvania State College, State College
Rosemont College, Rosemont
Seton Hill College, Greensburg
St. Thomas College, Scranton
State Teachers Colleges at
Bloomsburg
California
Clarion
East Stroudsburg
Edinboro
Indiana
Kutztown
Lock Haven
Mansfield
Millersville
Shippensburg
Slippery Rock
West Chester
Susquehanna University, Selinsgrove
Temple University, Philadelphia
Thiel College, Greenville
University of Pennsylvania, Philadelphia
University of Pittsburgh, Pittsburgh
Villanova College, Villanova
Washington and Jefferson Washington
Waynesburg College, Waynesburg

Course of Study in Visual Education

Mimeographed copies of the Pennsylvania revised course of study in Visual Education for teacher-training institutions have just come from the press. "A Summary of the Techniques of Visual-Sensory Aids for Teachers in Service and Teachers in Training" was developed to meet the requirements called for in the resolution of the State Council of Education last October making visual education a mandatory course before a permanent certificate to teach in the public schools of the commonwealth will be granted.

The revision committee consisted of Dr. C. F. Hoban, Director State Museum, Harrisburg; Dr. Henry Klonower, Chief of Teacher Training Bureau, Harrisburg; Leslie C. Krebs, State Teachers College, Shippensburg; Herbert L. Spencer, University of Pittsburgh; Wilber Emmert, State Teachers College, Indiana; L. Paul Miller, Scranton High School; R. G. Walters, Grove City College.

The outline has been in use for a number of years in the approved institutions offering courses in Visual Education but with the rapidly developing philosophy that is included within the course, the committee felt that this course should be broadened to include all those sensory techniques essential to meanful teaching. The document has been enlarged to sixty-five pages, with twenty-five lessons and extended appendices. The following unit headings give some idea as to the completeness of the course.

Unit I	Background
Unit II	Verbalism
Unit III	Values of Visual-Sensory Aids as Revealed by Use
Unit IV	Values of Visual-Sensory Aids as Revealed by Investigations
Unit V	The Psychological Background of Visual-Sensory Aids
Unit VI	Types of Visual-Sensory Aids
Unit VII	The School Journey or Field Trip
Unit VIII	The Object-Specimen-Model
Unit IX	Apparatus and Equipment
Unit X	Projection—Lenses, Mirrors, Screens, etc.
Unit XI	Still Projectors
Unit XII	Making Lantern Slides
Unit XIII	Motion Picture Projectors
Unit XIV	Still and Motion Picture Cameras
Unit XV	Pictorial Materials and Representations
Unit XVI	Textbook Illustrations, Photograph, Print, Cut-Out, Stereograph
Unit XVII	Lantern Slides
Unit XVIII	Representation Materials
Unit XIX	Miscellaneous Aids
Unit XX	Blackboard and Bulletin Board
Unit XXI	Radio and Radio Vision
Unit XXII	Integrating Visual-Sensory Aids
Unit XXIII	Standard Visual-Sensory Equipment
Unit XXIV	Bibliography
Unit XXV	Administration of a Visual-Sensory Aids Program

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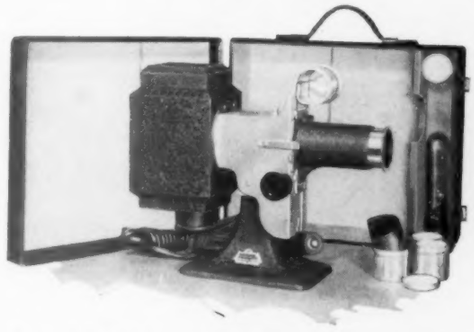

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The Church Field

A Worship Service Using Still and Motion Pictures

By ELMER K. ESSER
Editor, North District Epworth League, Philadelphia Conference

Suggestions for Opening Service

This may be published in the Church Bulletin.

Order of Service:

1. Organ Prelude, "Largo".....Handel
2. Opening Hymn, "In the Cross of Christ I Glory." Hymn No. 6
3. Opening Prayer.
4. Anthem—Choir, "For God So Loved the World" .....Stainer
5. Scripture, John 13:1-30.
6. Announcements.
7. Offertory.
8. Message, "In the Hours of Trial," a Worship Service, using Visual Aids.

Instructions

Lights: A person should be assigned to the lights. This is very important as there is nothing more disturbing as to have an inexperienced person fumbling and pushing the wrong buttons or switches. Lights should be put out without delay or any announcement, immediately after the offering is lifted and proper ceremony of this part of the service is brought to an end. If lights are in sets they should be put out slowly while the organist continues to play softly—eventually swinging into the Meditation as arranged.

Meditation—The Cross

For the Organist

1. On a Hill Far Away—Verse and chorus (The Old Rugged Cross).
2. When I Survey the Wondrous Cross.
3. May I Be Willing, Lord to Bear (Lead Me to Calvary).
4. Jesus, Keep Me Near the Cross (Near the Cross).
5. Must Jesus Bear the Cross Alone.
6. In the Cross of Christ I Glory.
7. I'll Exchange My Cross for a Starry Crown.
8. The Way of the Cross Leads Home.
9. So. I Cherish the Old Rugged Cross.

Note: With a little practice the organist can connect the above, forming a medley. By using variations and different stops, combined with playing with deep feeling, a very beautiful impression can be made. Much of the success of the service depends on the worship atmosphere created by the playing of this meditation.

Suggested Prayer

Slide—"Let Us Pray."

O Almighty God, when our vision fails and our understanding is darkened, when the ways of life seem hard and the brightness of life is gone, grant to us the wisdom that deepens faith and enlarges trust. And whensoever Thy ways in nature or in the soul are hard to understand, then may our quiet confidence, our patient trust, our loving faith in Thee be great; and as children, knowing that they are loved and cared for, may we with a quiet mind and at all times put our trust in Thee. So shall we face life without fear, and death without faltering; and whatsoever may await us in the life to come, give us the confident hope that whatsoever is best for us, both here and hereafter, is Thy good pleasure and will be Thy law. Amen.

Announcements: Be sure to include in the announcements "after the lights go out we will make no further announcements. You are asked to follow the screen and sing when the words of hymns are shown thereon."

Song Leader: It is advisable not to have a song leader for this type of program. Keeping the eye on the screen helps to concentrate on the line of thought.

Visual Aids Program

(No Announcements to be made)
(Do not print in Church Bulletin)

1. Slide Meditation—The Cross. Organist will play suggested hymns.
2. Slide Hymn—In the Hours of Trial.
3. Slide—"Let Us Pray." Pastor.
   Organist will please turn light out at organ.
4. Reel No. 1.
5. Slide—Peter's Denial.
6. Slide—Christ Before Pilate.
7. Reel No. 2.
8. Slide—The Shadow of the Cross.
   Organist will prepare for closing hymn. Light organ lamp—when ready, look at screen.
9. Slide Hymn—When I Survey the Wondrous Cross.

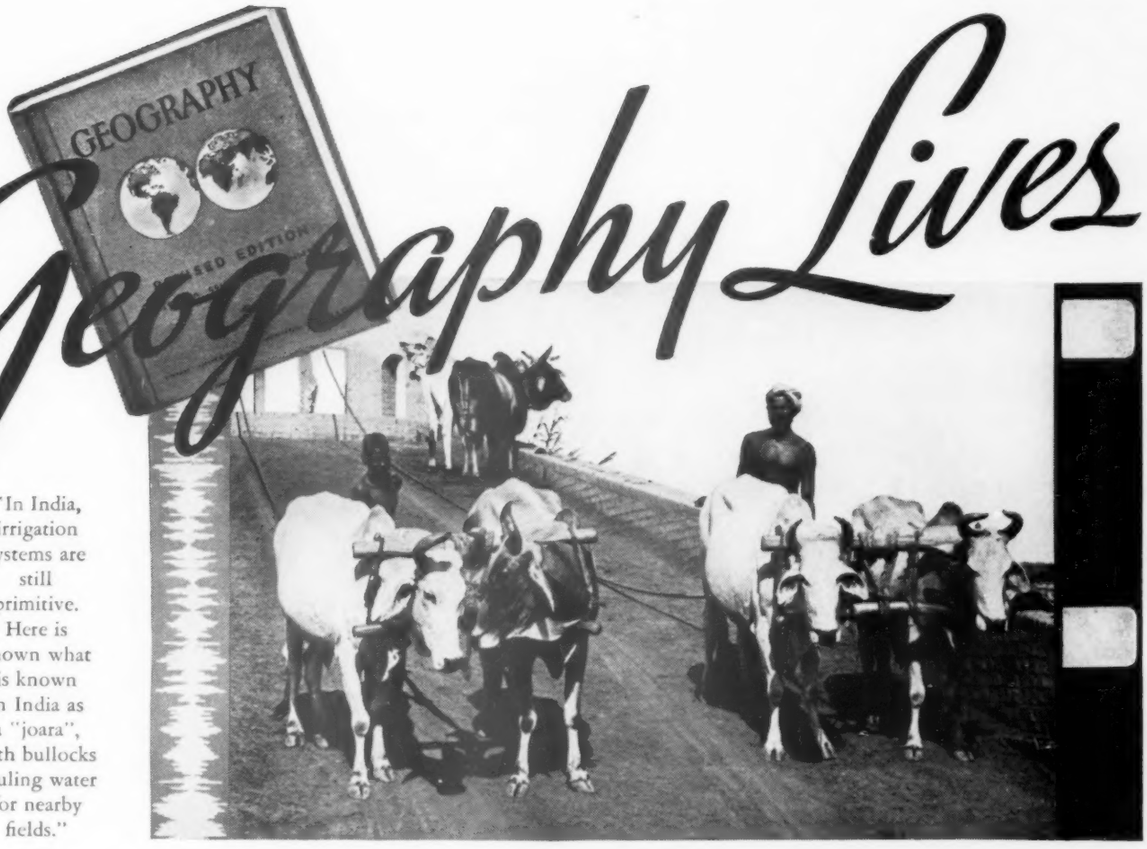
Ending Number 1:

If Opening Service is used, organist will continue to play softly. Slide "Come Unto Me," will be placed on the screen and the Pastor will pronounce the Benediction. Lights and Postlude—Adoration (The Holy City—Gaul, or Abide With Me).

Ending Number 2:

If no Opening Service is used, organist will continue to play softly as house lights are being turned on.

Announcements, Offering, Benediction, Postlude—Adoration—The Holy City—Gaul.



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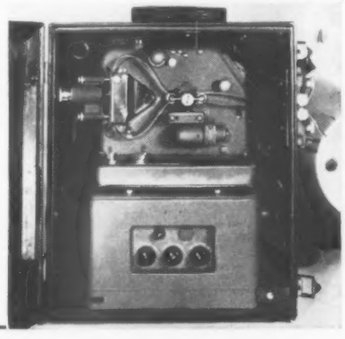

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School Department

Conducted by DR. F. DEAN McCLUSKY
Director, Scarborough School, Scarborough-on-Hudson, N. Y.

"America, the Land of Opportunity"

A series of fifteen wall panels executed by the seventh and eighth year pupils of Public School 80, Brooklyn from December through January in connection with their work in Fine Arts.

The general topic "America, the Land of Opportunity" was selected with the character of the district in mind. The classes consist almost entirely of the children of immigrants. The topic was divided into fifteen parts, one of which was assigned to each class. The topics were selected so as to trace the immigrant's life from the land of his birth to America, to show the steps he would probably take before reaching the American ideal of "owning one's own home," and then enjoying all the privileges of his adopted land. Seven double periods, each of eighty minutes for each class. Much after-school work had to be done by the "background committee" of each class. The children are constantly induced to urge their parents to take advantage of the Evening School privileges, later to become citizens, and then to live an ideal American life. To what degree the teachers have thus far succeeded is evidenced by an enthusiastic and intelligent Parent-Teacher's Association, cooperation from the home and Community interest in school events.

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Correlation

In the departmental grades, it is not easy to provide for subject correlation because of the four or five different teachers that supervise the varied subjects. With this point in mind, the following note, bearing the principal's approval, was sent to the teachers of every subject.

"All the classes from 7A1 to 8B4 are working out in their Art Class a wall painting depicting the general topic, 'America, the Land of Opportunity.' To carry out more completely the modern idea of the interrelationship existing among all the subjects of the curriculum, could you contrive in some manner to incorporate into your lessons of the coming weeks general information and specific references to the topic a particular class is considering? The following is a list of the classes you may have and their assigned topics:

7A1—Homes in America.
7A2—Arrival at Ellis Island.
7A3—Citizen's First Vote.
7B1—Free Hospital Service in Schools.
7B2—Scene in Court Naturalization.
7B3—Life at Home in Italy.
7B4—Public Beaches, Coney Island.
8A1—Free Evening Schools.
8A2—Free Parks and Playgrounds.
8A3—Life at Home in Russia.
8A4—On Board Steamer Entering N. Y. Harbor.
8B1—First Job.
8B2—Free Public Libraries.
8B3—Leaving Wharf for America.
8B4—Free Camping Privileges, Bear Mountain.

"Some suggested methods are, compositions, poems, oral and written reports, spelling words, general discussion periods, etc."

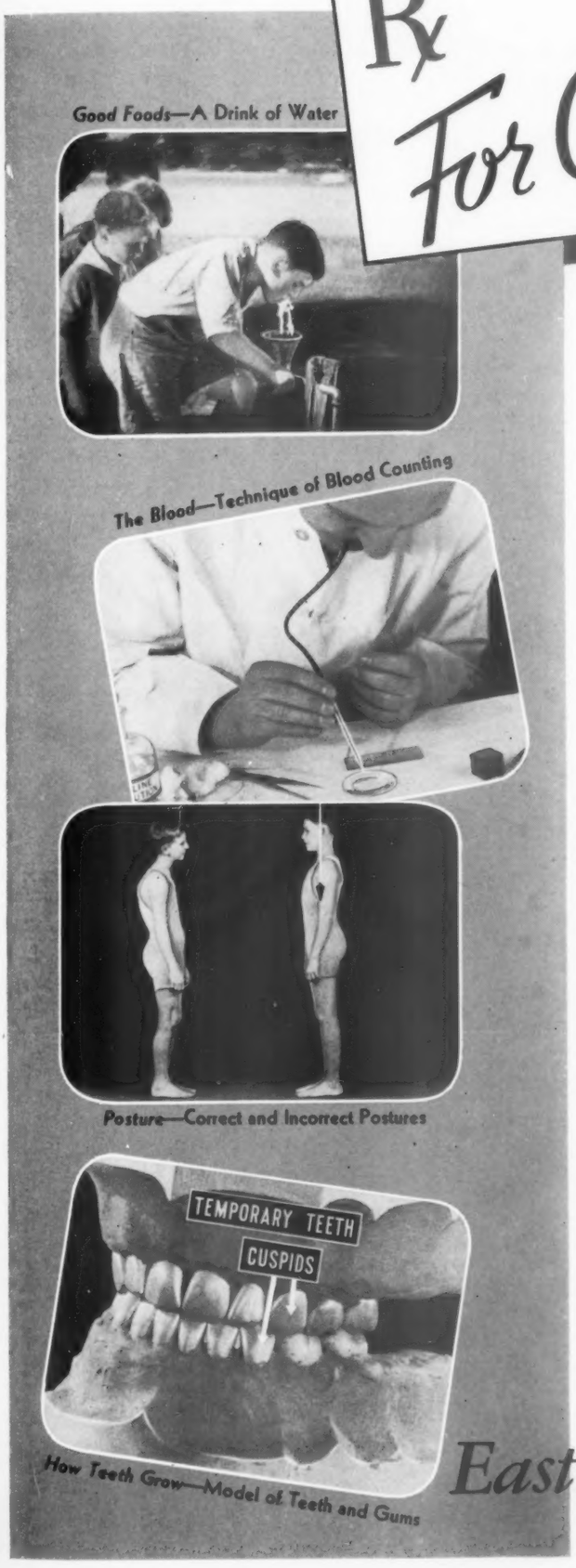
The method generally followed in each class with each topic was as follows:

(1) Discussion and initial sketch. (2) Manikin drawing. Background Committee selected by class with approval of teacher. (3) Figure-drawing in costume—a sketch. (4) Sketch of related parts of project. (5) Figures and parts painted. (6) Cut out figures and parts. (7) Finishing touches to project. Group discussion of things learned while at work during preceding lessons.

Here follows a brief discussion of some of the class topics and how each was handled.

(*Continued on page* 140)

Rx For Good Health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The Blood—Technique of Blood Counting
Posture—Correct and Incorrect Postures
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CUSPIDS
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  - *Keeping the Hair Clean*
- Digestion
- Diphtheria
- The Feet
- First Aid
  - *Care of Minor Wounds*
  - *Carrying the Injured*
  - *Control of Bleeding*
  - *Life Saving and Resuscitation*
- Food and Growth
- Football Fundamentals
  - *Drills for Individuals and Small Groups*
  - *Group and Team Drill*
- Good Foods
  - *A Drink of Water*
  - *Bread and Cereals*
  - *Fruits and Vegetables*
  - *Milk*
- Home Nursing
  - *The Bed Bath*
  - *Routine Procedures*
  - *Special Procedures*
- The House Fly
- Mold and Yeast
- Muscles
- Posture
- Sewage Disposal
- The Skin
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- How Teeth Grow
- Tuberculosis and How It May Be Avoided

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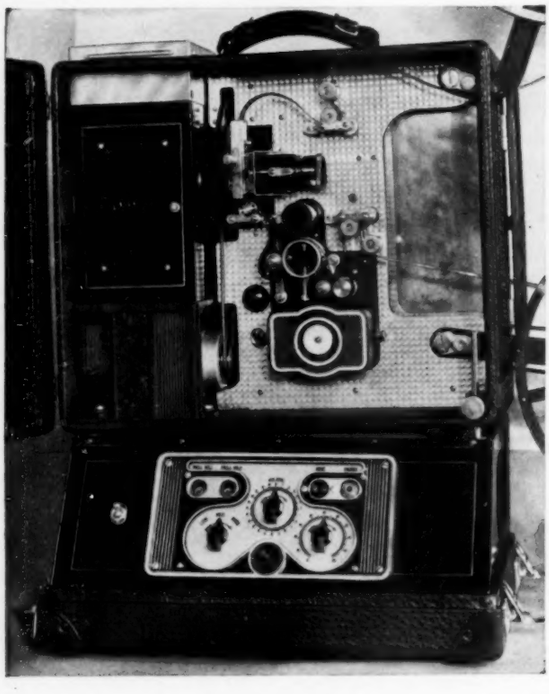

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Topic: "Life at Home in Russia" (Class: 8A3).

We discussed Russian life at the present time; we compared it with life before the revolution. We talked about its tremendous size, compared it with the United States, read about it from our geography books, discussed its principal industries and the concurring reasons for the important seaports. In general, we conducted a socialized recitation on the past, present and probable future of Russia or the U. S. S. R. When costumes were to be drawn, the children brought in authentic pictures of Russian life and used pictures from the Children's Museum. In drawing barns, houses and buildings, they learned the principles of perspective. In this topic, I felt the attendant learnings far exceeded the final end result.

Topic: "Life at Home in Italy." (Class: 7B3).

Most of the children in this class happened to be of Italian background which made our discussions very authentic. We discussed the climate, most important industries, principle seaports and the Italian exports we used in this country. In talking of Venice, we spoke of its past glories and the present lure it has for the tourist. A parallel was drawn between the canals of Venice and the avenues here; the gondolas of Venice and the automobiles of this country. Then it was decided that a picture of the Grand Canal in Venice with a bridge in the background would make a pretty wall picture demonstrative of an Italian scene. Principles of perspective were discussed in the drawings of figures, gondolas and buildings.

Topic: "Leaving the Wharf for America." (Class: 8B3).

We discussed the idea of a wharf upon which we would place people coming from all countries. The costumes of these people would be representative of their nationalities. We talked of the probable home conditions they were leaving; the thoughts and dreams in their minds of the New World. The children decided what they would have different people do—some children would be playing in a carefree manner, adults would be waving "good-by" to friends on the wharf, some inspectors might be checking their baggage—a variety of activities would be taking place. The end result shows a huge liner moored to the wharf—people are standing about in groups on the dock and others are marching up the gang plank.

Topic: "On Board the Steamer Entering New York Harbor" (Class: 8A4).

This problem dealt not with humans but with inanimate objects such as all kinds of boats, the skyscrapers of lower New York City, the Brooklyn Bridge and the Statue of Liberty. We found that by looking out from our classroom windows we could get a very good picture of harbor craft as tugboats, barges and smaller boats. A longer view brought us realistic pictures of the ocean vessels entering the Bay and in the distance the tops of skyscrapers. This class, I believe was about

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the only one that did most of their sketching from life. I always feel the final picture never shows the day by day learnings that really transpire in a work of this type.

Topic: "Arrival at Ellis Island." (Class: 7A2).

This topic lent itself admirably to class discussion. Room 301, situated as it is at the beginning of Gravesend Bay, has a box seat in which to inspect the ocean vessels as they come into the harbor. In this class we discussed the New York City pilot going aboard the newly arrived liner to guide it into port. We talked of the reasons for the existence of Ellis Island. We saw pictures from post cards, pamphlets and booklets of the inside and outside of Ellis Island. We talked of health inspectors at the Island who indirectly took care of our health. In drawing the costumes of the people we studied the garbs worn by every nationality that comes to our shores.

Topic: "First Job." (Class: 8B1).

Before sketching our initial drawing in this particular work we spoke of the varied fields the different nationalities went into in this country. Jewish people into selling clothing, dry goods, etc.; Italians into shoe repairing, fish stores, etc.; Greeks into the restaurants; Germans into the butcher shops, etc. The class decided that to show a city street with the varied stores representative of the nationalities would be a more general cross-section of American life than just picturing one job as perhaps paving a street. We again made our special study of human figures by manikin sketching. Some children sketched lamp posts and hydrants from our classroom windows.

Topic: "Court Scene—Naturalization." (Class: 7B2).

Our preparatory sketch for this study brought us into the realms of civics. We reviewed the life of the Immigrant as he came from his native land, his first idea being to secure employment and after a steady wage was assured his family he would start educating himself. The end in view we hoped would be becoming a citizen of the United States. We decided what the varied articles most common to a court room were. We discussed reasons for the presence of a Bible, a mallet, a witness chair. In drawing most of these articles we used the principles of correct alignment and perspective. Here again the end results did not consider the points involved.

Topic: "Citizen's First Vote." (Class: 7A3).

The children decided that the very first thing that a newly made citizen would be likely to desire would be to exercise the privilege of voting. We learned about the reason for registering—we discussed the place selected for the voting machines. First-hand information was secured here because the basement of our school is used as a voting center for our district. The children brought in pictures of the levers that are used in the modern voting machine. We looked at pictures of

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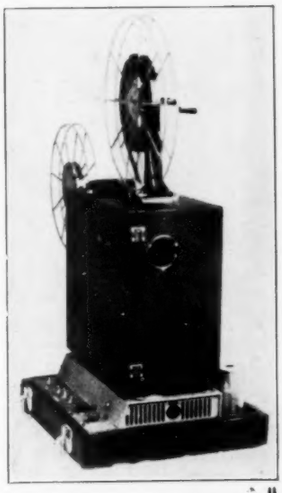

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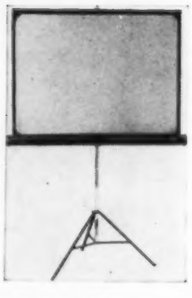

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SCREENS

people voting. Again we studied manikin drawings, action figures, perspective in the drawing of voting machines and clerks' desks. In the summary talk of this piece of work, it was surprising to note some of the things the children declared they had learned.

Topic: "Free Camping Privilege—Bear Mountain." (Class: 8B4).

Here indeed we were talking to the boy, the "American Boy" in a language that he understood. The benefits of summer camping become more apparent yearly. That children derive untold physical and spiritual advantages from them is unquestioned. We discussed the proximity of the Palisade Interstate Park to New York City. The numerous scout, Y. M. C. A. and similar organization camps in this park (that is commonly owned by every New Yorker and Jerseyite) attest the popularity of this method of spending a summer vacation. The many scouts in the class talked of the camping program, told us of the clothes the scouts wore in the various occupations of the day. We spent many an enjoyable period drawing camp scenes and figures and recalling past pleasant experiences.

Topic: "Free Public Beaches—Coney Island." (Class: 7B4).

With the modern trend in education going toward activity programs, we got off to a flying start in this wall painting. We went on outside private excursions to personally inspect a tall electric light that helps keep the boardwalk bright at night. From the boardwalk, the children sketched ferris wheels, the appearance of the school and other tall buildings about. From our classroom window, we drew pictures of the Half Moon Hotel. Our sketches of the beach comprised all kinds of bathing suit poses, running, jumping, reclining, walking, etc. All preceded by a plan—that of stick—then manikin figures. This piece of work came second to being the nearest to home; the first being the classroom picture.

Topic: "Free Parks and Playgrounds." (Class: —8A2).

Again we tried not to wander far afield for our topic of research. To be sure, the nearest park is eight blocks away, but what child has not walked the eight blocks to be made happy for hours on the swings and see-saws? We talked of the coming project of the P. W. A. C., a park near Neptune Avenue and 23rd Street. We decided what the various things would be in this new park if we had complete charge of it. There would be a barrier of trees to prevent balls from gamboling helplessly into the Bay; there would be a large area set aside for baseball and football; there would be a playground for the younger children equipped with swings and slides and see-saws. The problems confronting the children were many, but they handled them as best they could.

Topic: "Owning Your Own Home." (Class:—7A1).

We again traced the progress of a foreigner thru the trials of starting life here, becoming naturalized, later achieving economic independence and now owning his own home. This privilege we noted was denied to "the masses" in a great many countries. The children decided on a typical home scene —a pretty house in the center, surrounded by trees, children playing on the lawn, passers-by noting the friendly atmosphere of genial warmth emanating from the happy home and perhaps the father returning home from work being greeted by his wife and children. Surely, a topic to conjure with in this day and age of loosely binding home-ties. Here, too, were taught primary art principles in simple form.

MARGARET M. GREENE
Teacher of Drawing
Public School 80, Brooklyn, New York

Third Dimension Picture-Books

THE ANIMAL KINGDOM; THE BIRD KINGDOM; FOOT PRINT SERIES. Published by Orthovis Printing Company, Chicago, in cooperation with the Field Museum of Natural History.

Pictures of almost unbelievable reality, with true stereoscopic effect, are produced in these books as single cuts without duplication of space needed to print the conventional stereograph. They no longer deserve the term, "flat pictures." The third dimension is there. Simple light-weight pasteboard "spectacles," with one celluloid eye-piece red, one blue, is held to the eyes. The pictures are printed in blue and red tones, accurately off-register. Absorption of color by the eye-pieces produces a blended stereo without color. This most clever application of the color filter is not only interesting but educationally valuable.

An orthoscope is furnished with each book, an optional type having an extension which rests on the ear and supports the frame. Two cloth-bound books, 10 by 12 inches, have a picture and a paragraph description on each page. One deals with *The Animal Kingdom;* the other with the *Bird Kingdom.* The *Foot-print Series* is issued in four smaller paper-bound booklets with more descriptive matter with each view. They are devoted to, *The Lion, The Deer, The Bear,* and *Wild Sheep and Goats.*

The subjects pictured are stereoscopically photographed from habitat groups in the Field Museum, affording an excellent correlation of aids to learning by means of the library and the museum. The plant kingdom and a description of the earth's structure, with the evolution of life, are to be treated later. The Melvina Hoffman anthropological bronzes, recently placed in the Field Museum, are to be illustrated and described in another book during the summer. The manuscript has been written by Mr. H. B. Harte of the Museum Staff, who also writes the text for the Foot Print Series. Research is being carried on for a publication on the American Indian, using the third dimensional effect, in illustrating appropriate exhibits in the Peabody Museum of Harvard, the Buffalo Museum, and the Milwaukee Museum.

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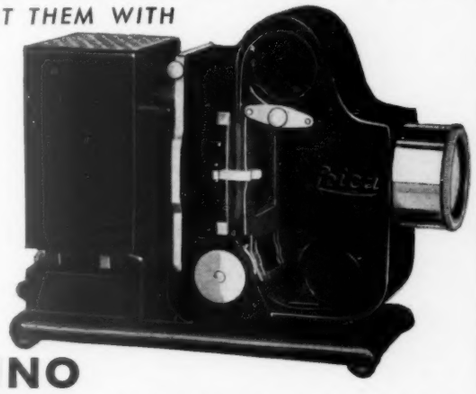

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Visual Education on Nebraska Teachers Program

The Saturday afternoon meeting of the Nebraska State Teachers Association Department of Superintendents and Principals two-day conference, March 29-30 at Lincoln, was devoted to a "panel discussion of the relation of visual aids and materials to the learning process." Dr. K. O. Broady, University of Nebraska, presided. An exhibit of visual materials was also held.

Among the Producers

Where the commercial firms—whose activities have an important bearing on progress in the visual field—are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

The Kodachrome Process

By DR. C. E. KENNETH MEES

FROM the very beginning of photography, experimenters have tried to make photographs in color instead of in monochrome, and numberless processes have been put forward for that purpose. The ideal process would be one in which the color picture would be as easy to take and as certain in result as the monochrome picture is, but until now no color process has approached that ideal. With the new Kodachrome process it is as easy to take 16mm. color pictures as it is to take 16mm. black and white pictures, and the percentage of good results obtained is as high.

All practical processes of color photography depend upon the division of the light into three components, red, green, and blue-violet. Pictures are taken by these three components and are then combined by some method in order to give the finished color picture.

In the Kodacolor process, the color separation is obtained optically. In the lens of the camera is placed a multiple color filter composed of the red, green and blue units and the tiny lenses embossed on the film make multiple images of the three units on the film emulsion. In projection, the same three filters are placed on the lens and a color picture is obtained on the screen. A multi-color image in the form of microscopic colored strips is projected and reproduces the colors of the original.

In the new Kodachrome process, the separation of the light into the three components is not accomplished by placing the separate components in juxtaposition; they are separated in depth. The film for this process is coated no less than five times! Nearest the base, an emulsion is coated which is strongly red-sensitive. This is then over-coated with a separating layer of gelatin containing some dye to act as a filter. Above this is coated a green-sensitive emulsion. This is over-coated again with another separating layer. Finally, there is applied a top coat which is blue-sensitive. When a picture is taken upon such a film, the three components are automatically separated in the depth of the coating. The red component is formed in the red sensitive emulsion nearest to the base, the green component is formed in the middle layer of emulsion, and the blue component forms the image of the top layer. In order to obtain a color picture with this film, all that is necessary is to transform each component image of the negative into a positive image consisting of a suitably colored dye. This is accomplished by an extremely complex processing system. The images in the three layers are first developed, as with ordinary black and white film, and then by a series of treatments the images in the three layers are transformed into positives formed in the dye. The whole of the silver salts are removed finally, and the image consists of three superimposed dye pictures.

The process is the invention of Mr. Leopold Mannes and Mr. Leo Godowsky, Jr. As a result of collaboration between them and the Kodak research laboratories for a number of years, a task which at first appeared impossible was achieved and the Kodachrome process is the result. Previously, color in photography has involved sacrifice; more light was needed for taking the photographs, it was difficult to get sufficient depth of focus, some definition was lost, it was only possible to project pictures on a small screen because of the loss of light in projection. In spite of these disadvantages, motion pictures in color have been very much appreciated, but their use has always been limited. The ordinary amateur motion picture has been in black and white, and only when taking conditions were favorable and when projecting conditions were not too exacting could color pictures be used. With the coming of the new process, amateur motion pictures will be in color. There is no need any longer for us to pretend that the world is in monochrome and to represent the glorious colored world in which we live by a gray ghost on the screen.

New Department Created by RCA

Mr. G. K. Throckmorton, Executive Vice President of the RCA Manufacturing Company, announced the creation of a new Visual Sound Products Department, headed by John K. West, as Manager, to handle the sales activities in connection with 16 millimeter sound-on-film amateur motion picture cameras, 16 millimeter sound projectors, for school, home and industrial use, slide-film mechanisms, and sound advertising trucks. At the same time, announcement was made of the establishment of branch district offices for the promotion and sale of visual sound products in New York, Chicago and Hollywood. Mr. E. F. Kerns is in charge of the New York District, with headquarters at 411 Fifth Avenue; Mr. C. S. Kernaghan is in charge of the Chicago district, with headquarters at 111 North Canal St.; and Mr. Mark Smith, is in charge of West Coast activities in this field.

Bell & Howell Equipment Catalog

Bell & Howell Company has just issued a 16 mm. projector catalog which is of especial interest to all concerned with motion picture projection because of the astounding progress in projection equipment which is reflected in its pages. Illustrated and described is the new, powerful Filmo Auditorium Projector, the first and thus far the only 16 mm. projector to employ a 1000-watt lamp. It takes 1600-foot reels, and thus has sufficient film capacity for giving a one-hour program without rethreading. Also presented are the new 750-watt projector, moderately priced, but also offering 1600-foot film capacity, the Filmo JS, fully gear driven, even to feed and take-up spindles, with 400-foot film capacity and 750-watt illumination. The Filmo S 750- and 500-watt projectors, priced remarkably low for machines of Bell & Howell quality, are also included, to say nothing of the Bell & Howell 16 mm. sound-on-film reproducer, and the B&H Continuous Projection Attachments, used commercially with both silent and sound projectors.

This compact 16 page catalog will be sent free of charge on request to Bell & Howell Company.

Activities of Visual Education Agencies

(*Concluded from page* 127)

High School, any school desirous of affiliating itself with the project, purchases and deposits a 16mm. film in the Visual Aids library and pays a service fee of $5.00 per year. This entitles the school to unlimited use of the 16mm. films and glass slides during the year. Inasmuch as the average life of a film which is booked once a week is approximately two years, schools are asked to deposit a film every two years. Excellent classroom films may be purchased at $24.00 per reel, and therefore the total yearly cost to a school is approximately $17.00 per year. With the beginning of the second year of the plan there are available to member schools more than 150 reels of 16mm. film. This service is in addition to unlimited use of glass slides, while a small additional fee entitles the member school to 35mm. films also.

Kansas and Colorado Plan

Kansas and Colorado have pooled their resources and extended their service to other states as well. The Universities of these two states has each its own film library. A joint catalog lists all the films in both, indicating in each case the University in which it is stored. For a flat fee, which ranges according to the extent of the service to be rendered, schools in any nearby state may avail themselves of the materials of both libraries. Schools in Kansas, and in states north, south, and east of it enroll with the University of Kansas, while those in Colorado, and north, south, or west of that state, enroll with the University of Colorado.

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The 1935 educational film handbook lists 2,000 films thoroughly classified and indexed. 400 of these are loaned free to subscribers. Send 35c (stamps) for handbook. This will also register you for film service until Mar. 1, 1936.
INTERNATIONAL EDUCAT'L PICTURES, INC.
MT. VERNON & WALNUT STS. BOSTON, MASS.

Here They Are

A Trade Directory for the Visual Field

FILMS

Bray Pictures Corporation (3, 6)
729 Seventh Ave., New York City

Eastin Feature Films (6)
(Rental Library) Galesburg, Ill.

Eastman Kodak Co. (4)
Rochester, N. Y.
(See advertisement on outside back cover)

Eastman Kodak Co. (1, 4)
Teaching Films Division
Rochester, N. Y.
(See advertisement on page 139)

Edited Pictures System, Inc. (1, 4)
330 W. 42nd St., New York City

Erpi Picture Consultants, Inc. (2, 4, 5, 6)
250 W. 57th St., New York City
(See advertisement on page 117)

Walter O. Gutlohn, Inc. (5)
35 W. 45th St., New York City
(See advertisement on page 142)

Guy D. Haselton's TRAVELETTES
7901 Santa Monica Blvd., Hollywood, Cal. (1, 4)

Ideal Pictures Corp. (3, 6)
30 E. Eighth St., Chicago, Ill.

Institutional Cinema Service, Inc. (3, 6)
130 W. 46th St., New York City

International Cinema League (3, 5)
11 W. 42nd St., New York City
(See advertisement on page 147)

International Educational Pictures, Inc.
40 Mt. Vernon St., Boston, Mass.
(See advertisement on page 147)

Modern Woodman of America (3, 4)
Rock Island, Ill.

Pinkney Film Service Co. (1, 4)
1028 Forbes St., Pittsburgh, Pa.

Ray Bell Films, Inc. (3, 6)
2269 Ford Road., St. Paul, Minn.

United Projector and Films Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.

Universal Pictures Corp. (3)
Rockefeller Center, New York City
(See advertisement on page 120)

Wholesome Films Service, Inc. (3, 4)
48 Melrose St., Boston, Mass.

Williams, Brown and Earle, Inc. (3, 6)
918 Chestnut St., Philadelphia, Pa.

MOTION PICTURE MACHINES and SUPPLIES

The Ampro Corporation (6)
2839 N. Western Ave., Chicago.
(See advertisement on page 121)

Bell & Howell Co. (6)
1815 Larchmont Ave., Chicago, Ill.
(See advertisement on inside back cover)

Eastman Kodak Co. (4)
Rochester, N. Y.
(See advertisement on outside back cover)

Edited Pictures System, Inc. (1)
330 W. 42nd St., New York City

Erpi Picture Consultants, Inc. (2, 4, 5, 6)
(Western Electric Sound System)
250 W. 57th St., New York City
(See advertisement on page 117)

Herman A. DeVry, Inc. (3, 6)
1111 Center St., Chicago
(See advertisement on page 140)

Holmes Projector Co. (3)
1813 Orchard St., Chicago
(See advertisement on page 142)

Ideal Pictures Corp. (3, 6)
30 E. Eighth St., Chicago, Ill.

Institutional Cinema Service, Inc. (3, 6)
130 W. 46th St., New York City

International Projector Corp. (3, 6)
90 Gold St., New York City
(See advertisement on inside front cover)

Motion Picture Camera Supply, Inc. (3, 6)
723 Seventh Ave., New York City
(See advertisement on page 144)

Motion Picture Accessories Co. (3, 6)
43-47 W. 24th St., New York City.
(See advertisement on page 147)

RCA Victor Co., Inc. (5)
Camden, New Jersey.
(See advertisement on page 137)

Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.

S. O. S. Corporation (3, 6)
1600 Broadway, New York City

Sunny Schick, National Brokers (3, 6)
407 W. Washington Blvd.,
Fort Wayne, Ind.
(See advertisement on page 143)

United Projector and Film Corp. (3, 4)
228 Franklin St., Buffalo, N. Y.

Victor Animatograph Corp. (6)
Davenport, Iowa
(See advertisement on page 118)

Weber Machine Corp. (2, 5)
59 Rutter St., Rochester, N. Y.
(See advertisement on page 143)

Williams, Brown and Earle, Inc. (3, 6)
918 Chestnut St., Philadelphia, Pa.

SCREENS

Da-Lite Screen Co.
2721 N. Crawford Ave., Chicago
(See advertisement on page 144)

Institutional Cinema Service, Inc.
130 W. 46th St., New York City

Mogull Bros., Inc.
1944 Boston Rd., New York, N. Y.
(See advertisement on page 138)

Motion Picture Accessories Co.
43-47 W. 24th St., New York City.
(See advertisement on page 147)

Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

SLIDES and FILM SLIDES

Conrad Slide and Projection Co.
510 Twenty-second Ave., East
Superior, Wis.

Eastman Educational Slides
Iowa City, Iowa

Edited Pictures System, Inc.
330 W. 42nd St., New York City

Ideal Pictures Corp.
30 E. Eighth St., Chicago, Ill.

Keystone View Co.
Meadville, Pa.
(See advertisement on page 120)

Radio-Mat Slide Co., Inc.,
1819 Broadway, New York City
(See advertisement on page 147)

Society for Visual Education
327 S. La Salle St., Chicago.
(See advertisement on page 135)

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 143)

Victor Animatograph Corp.
Davenport, Iowa
(See advertisement on page 118)

Visual Sciences
Suffern, New York.
(See advertisement on page 147)

Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

STEREOGRAPHS and STEREOSCOPES

Herman A. DeVry, Inc.
1111 Center St., Chicago
(See advertisement on page 140)

Keystone View Co.
Meadville, Pa.
(See advertisement on page 120)

STEREOPTICONS and OPAQUE PROJECTORS

Bausch and Lomb Optical Co.
Rochester, N. Y.
(See advertisement on page 141)

E. Leitz, Inc.
60 E. 10th St., New York City
(See advertisement on page 145)

Regina Photo Supply Ltd.
1924 Rose St., Regina, Sask.

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
(See advertisement on page 143)

Williams, Brown and Earle, Inc.
918 Chestnut St., Philadelphia, Pa.

REFERENCE NUMBERS

(1) indicates firm supplies 35 mm. silent.
(2) indicates firm supplies 35 mm. sound.
(3) indicates firm supplies 35 mm. sound and silent.
(4) indicates firm supplies 16 mm. silent.
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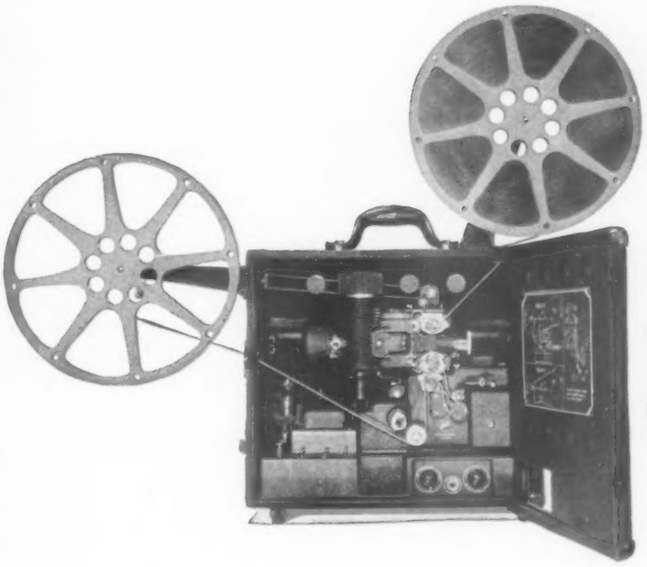

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PAYSON H. REED, PRINCIPAL

April 5, 1935

Mr. F. C. Roberts, Educational Divison,
Bell and Howell Co.,
1801 Lachmont Avenue,
Chicago, Illinois

Dear Mr Roberts:

We have had our FILMOSOUND reproducer one year, and we are still as greatly thrilled as we were when we first received it. It has proved a most efficient part of our school work, and has lent itself most readily to educational and entertainment activities.

We have projected silent and sound pictures in our gymnasium for the entire school, and we have also projected pictures in our class rooms. In our gym we portray a 9'x12' picture, and in the class rooms a 4x5 picture. In both places the pictures are very clear, and the tone very life like. We have used the amplifying system for the broadcasting of music and speech making, and are now making use of this machine in almost every school assembly.

In spite of the great use we have made of our FILMOSOUND we have yet to make a single repair. We have never yet desired the use of this machine and found it wanting.

Before we purchased the FILMOSOUND we investigated, at that time, every reputable make of projector, and it was with unanimous choice that we purchased the FILMOSOUND. I feel for school work one can not find a better projector than the FILMOSOUND.

Very truly yours,

FST;R

Ass't. Principal

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